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Tek-CARE500

UL2560 Listed Wireless Emergency Call System

Installation and Operation Manual

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Tek-CARE500 Installation and Operation Manual

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Introduction and Overview

Welcome to the installation manual for the Tek-CARE500 Wireless Emergency Call System. TekTone thanks you for purchasing our products and aims to provide the best product support and service in the industry. This manual is designed to guide you through the installation process of a Tek-CARE500 system from start to finish, but if you have questions at any point during the installation process, do not hesitate to contact our Technical Support Department by email at teksupt@tektone.com or by phone at 800.327.8466 or 828.524.9967. Choose Option 3 for Technical Support.

The Tek-CARE500 system is a versatile wireless emergency call system that offers a wide range of device options to suit the needs of many types of care facilities. Available devices include emergency call switches, pendant transmitters, door alarms, motion detectors, and much more. The Tek-CARE500 system carries a 3-year warranty on all purchased SF500-series stations, pendants, and transmitters. Paging equipment, call cords, pillow speakers, refurbished equipment, and the NC475 Tek-CARE Central Equipment maintains a 1-year warranty.

Before beginning installation, be sure and familiarize yourself with this manual and the system setup steps. See the following page for important installation and programming notes. The Tek-CARE500 system must be installed as outlined in this manual.

The Tek-CARE500 system may be used as either a standalone emergency call system using the NC475 Tek-CARE Central Equipment as the master station or it may be connected as a part of a larger TekTone nurse call system using the Tek-CARE Network.

With the addition of the LS600 Tek-ALERT Integration Manager License, the Tek-CARE500 system is capable of communicating with many other types of building systems, such as fire alarm and security systems. The LS600 Tek-ALERT Integration Manager License also allows the Tek-CARE500 system to display and log events from older analog TekTone nurse call systems such as the Tek-CARE NC110, NC150, NC200, and TC300/II systems.

> **IMPORTANT**: Due to the nature of a wireless communication system, it is necessary to conduct a thorough site survey using the NC500ESSK Site Survey Kit before beginning installation of the Tek-CARE500 system. A site survey helps determine exactly how many NC511UL Repeater/Locators are needed on the system and where they should be installed.

Types of Installation

The Tek-CARE500 system exists in three variants—a **UL** 2560-compliant system for the Assisted Living market, EchoStream (**ES**), and the legacy Frequency Agile (**FA**) version. TekTone currently sells **UL** devices and supports **ES** devices. **FA** devices are obsolete, and while they are supported by TekTone, new devices and replacement parts are no longer available.

UL, **ES**, and **FA** devices generally share the same part numbers, but **UL** and **ES** devices have a suffix attached to the end of the part number. For example, an SF529 is an **FA** device, an SF529ES is an **ES** device, and an SF529UL is the **UL**-Listed version of the SF529ES.

Since UL and ES devices are current, part numbers referenced in this manual are for **UL** and **ES** systems unless otherwise noted.

The NC475 Tek-CARE Central Equipment can support a connection to one **UL** or **ES** receiver and one **FA** receiver simultaneously, meaning that **FA** and **UL** or **ES** devices can be supported on a single system. The NC475 Tek-CARE Central Equipment does not support connections to multiple **UL**, multiple **ES**, or multiple **FA** receivers.

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Notes on UL 2560 Installations

If the Tek-CARE500 system is installed in a facility that requires a UL 2560-Listed wireless emergency call system, only UL-Listed hardware must be used.

Adding Tek-CARE500UL components to an existing Tek-CARE500ES system does not impart a UL certification to the existing system.

In order to comply with the UL 2560 supervision and alarm transmission guidelines, the following device/repeater matrix must be followed.

End Devices	Maximum Repeaters
150	397
250	386
350	375
500	360
1000	313
2000	238
3000	184

Tek-CARE500UL devices send a supervision message to the system once every 60 minutes. To accommodate the wireless traffic while maintaining alarm transmission reliability, follow the guidelines above.

ES devices are not certified to the same reliability standards as Tek-CARE500UL devices. When adding Tek-CARE500UL transmitters, be sure to select the 60 min supervision interval. For more information on adding Tek-CARE500UL transmitters, see **Program ES and UL Transmitters on page 18**.

Note that only the end devices and NC511UL Repeater/Locators are UL 2560 specific.

The NC510UL Receiver is used for both ES and UL installations.

Adding UL Devices to an existing ES System

All Tek-CARE500 devices with warranty numbers higher than #N6768730 utilize UL capable hardware. If devices with warranty numbers higher than #N6768730 are added to an existing Tek-CARE500ES system as expansion or replacement parts, a software change is needed to prevent missing devices from appearing in the software.

The recommended method is to update the Tek-CARE software to version 7283 or later. If a software update is not desired, set the supervision timeout for the new devices to 1 day. This will prevent false missings from appearing the system. For more information, see **Program ES and UL Transmitters on page 18**.

Keys to a Trouble-Free Installation

- Conduct a thorough site survey to determine locations where repeater/locators are necessary.
- Carefully read this manual and follow all procedures outlined within.
- Use the included programming worksheet to note device numbers and locations.
  NOTE: Remember that the ConfigTool does not automatically update the Tek-CARE system. Changes made in the ConfigTool must be committed to the system.
- Test each device after it is mounted in its final location.
- Create a backup of the configuration on the included flash drive when system setup is complete.
- Do not mount TekTone devices using non-TekTone hardware. Metal backboxes will interfere with signal transmission.

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The LS450 ConfigTool Software

The LS450 ConfigTool is used for the majority of system programming.

The System Configuration resides on the Tek-CARE system. The configuration can be modified by the ConfigTool on your programming laptop. Choose **Load Configuration from System** at the ConfigTool splash screen, or, if the ConfigTool is already running, **File→Load Configuration from System** to update the configuration that is shown in the ConfigTool.

Once the updated configuration has been loaded, save it to a backup location by choosing **File→Save As**.

Occupant Term Note

The Tek-CARE system and this manual make numerous references to the term Patient. The default occupant term on the Tek-CARE system is Patient, but can be easily changed to suit the desires of the facility. If the occupant term is changed on the Tek-CARE500 system, it will change system wide. For example, if the occupant term is changed to Resident, any references to the term Patient in the ConfigTool and Reporting System will change to Resident as well.

To change the occupant term, refer to **Change the Default Occupant Term on page 26**. Other suggested occupant terms include Resident, Guest, Client, or Patron.

ConfigTool

Please refer to IL855 LS450 ConfigTool manual for further guidance on using the ConfigTool Software.

Pay close attention to the icons in the lower left corner of the ConfigTool screen. These icons will alert you to when configurations are synced to the system, where the configuration is stored, if the configuration is saved, and if the NC475 Tek-CARE Central Equipment is maintaining a connection to the Tek-CARE Network.

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Tek-CARE500 Echo Stream/UL System Components



NC475DESK: The NC475DESK includes the NC475 Tek-CARE Central Equipment with a 24" touchscreen monitor that functions as a visual master for the Tek-CARE system. Calls, faults, and basic system configuration options are available as well as annunciation settings, Config backups, Reporting, and a Faults display. A wireless keyboard and mouse are included.



NC475 Tek-CARE Central Equipment: The NC475 serves as the point of connection and main master station for Tek-CARE500 stations. The NC475 Tek-CARE Central Equipment is the connection point for the NC510UL Receiver, and the LCD screen on the face of the NC475 is the primary annunciation location for all calls and faults present on the system. The NC475 also includes the Tek-CARE Reporting system, and can be licensed for connections to other TekTone hardware on the Tek-CARE Network. In addition, the NC475 can also connect to the facility's LAN, enabling the use of the Tek-CARE Staff App for mobile devices, Tek-CARE TV app, as well as the Tek-CARE Event Monitor App for Windows, which runs on facility PCs.



NC510ES/UL Receiver: The NC510ES/UL receiver connects directly to the NC475 Tek-CARE Central Equipment and receives calls from wireless devices in the facility. The NC510UL receiver transfers messages from ES and UL devices.



NC511ES/UL Repeater/Locator: The repeater/locator extends the reception range and can determine the approximate location of a roaming transmitter within the facility. An optional weatherproof housing (TekTone part number IH511) is available if the repeater/locator is to be mounted outdoors or if additional protection for the repeater/locator is desired.



SF501ES Water Resistant Single Button Pendant Call Transmitter: The single button pendant call transmitter is a water-resistant mobile transmitter that includes both a belt clip and necklace. An alarm placed from the SF501ES is reset by pressing the recessed reset button on the reverse side of the pendant transmitter. To send a call from the device, press the large call button for one second.



SF501/2ES Water Resistant Dual Button Pendant Call Transmitter: The dual button pendant call transmitter is a water-resistant device that includes both a belt clip and necklace. An alarm placed from the SF501/2ES must be reset by pressing the recessed reset button on the reverse side of the pendant transmitter. To place a call from the device, press both buttons simultaneously for one second.

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SF502ES Wall Mounted Call Transmitter: The SF502ES Wall Mounted Call Transmitter is a single-button emergency call transmitter. The alarm sent from the SF502ES transmitter must be reset at the NC475 Tek-CARE Central Equipment. The SF502ES may also be configured as a patient check-in button or the included necklace may be attached so that it can be used as a portable transmitter.



SF503UL and SF504UL Waterproof Pendants: The SF503UL Necklace Pendant and SF504UL Wrist Strap Pendant are next-generation pendants for the Tek-CARE500 system. When a call is placed, the pendant vibrates and flashes its LED to assure the resident that the call has been placed. Alarms are reset using the RP500 Alarm Clearance Card or by a series of button presses. The SF503UL and SF504UL pendants are waterproof and conform to the IP67 standard.



SF515ES/UL Wireless PIR Activity Sensor: The SF515ES/UL Wireless Passive Infra-Red Activity Sensor is sensitive to moving heat sources. It can be used as a check-in device on the Tek-CARE500 system.



SF520ES/UL Door/Window Egress Transmitter: This transmitter is used to monitor door and window activity. It may be used as either NO (Normally Open) or NC (Normally Closed) to allow use in a variety of applications. Alarms are either automatically reset when the device returns to a normal state or when calls are acknowledged by staff, depending on system programming.



SF521UL Room Station: The SF521UL is used in resident rooms where call cords are required. It has a similar function to the SF530UL with updated aesthetics. Calls from the SF521UL must be reset at the point of origin. The SF521UL also supports resident check-in using the Reset button on the station if check-in schedules have been properly programmed. The SF521UL includes cord-out detection, which is annunciated at the NC475 Tek-CARE Central Equipment and at any monitors and master stations installed on the system. The SF521UL is mounted using an IH521K (single) mounting kit. The SF521UL requires the NC475 Tek-CARE Central Equipment.



SF523UL Two-Button Pull-Cord Station: The SF523UL is a customizable call station for the Tek-CARE500 wireless nurse call system. The SF523UL is supplied with three interchangeable call type inserts so that the station can be configured to the needs of the facility. An optional pull cord is also included. The SF523UL supports resident check-in using the Reset button on the station if check-in schedules have been properly programmed. The SF523UL is mounted using an IH521K (single) mounting kit. The SF523UL requires the NC475 Tek-CARE Central Equipment.

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SF525ES/UL and SF525/2ES/UL NO/NC Universal Contact Transmitters: The SF525ES/UL and SF525/2ES/UL transmitters are used with any standard NO or NC switch, enabling the Tek-CARE500 system to monitor a variety of inputs. The SF525ES/UL includes one selectable NO/NC input and the SF525/2ES/UL includes one selectable NO/NC input plus an NC-only input. The secondary NC-only input's call type has not been preassigned. The call type must be assigned using the Hardware page in the ConfigTool software. Alarms are automatically reset when returned to a normal state or when calls are acknowledged by staff, depending on system programming.



SF527ES/UL Wireless Support Module: The SF527ES/UL Wireless Support Module may be connected to an SF337C Waterproof Switch or an SF339 Pushbutton Emergency Switch to allow these switches to operate as wireless devices. This is especially useful in an environment such as a shower or bathroom where calls must be easily placed and water resistance is desired. NOTE: As of 6/18, the SF339 has been discontinued.

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Optional System Components



NC503 Central Monitoring Modem: The NC503 provides an interface between the system's Tek-CARE Central Equipment and a telephone line in order to send alarm messages to a central monitoring station.



NC365B Paging Transmitter: When RF paging is a required component of a facility's emergency call system, the NC365B Paging Transmitter is used. The paging transmitter enables both automatic and manual pages to be sent to NC397A Alphanumeric Pagers.



NC397A Alphanumeric Pager: The NC397A Alphanumeric Pager receives automatic and manual paging messages from the Tek-CARE system sent by the NC365B Paging Transmitter.



NC120 Central Equipment Module: The main component of the Tek-CARE120 system is the NC120 Central Equipment (CE) Module. The CE module is designed to be stackable or rack mountable. The NC120 CE Module can operate as a standalone system, or as a module on a larger, integrated Tek-CARE nurse call system. The NC120 CE Module provides connections for 64 Tek-CARE120 room controllers and six NC415G3 Master Stations. Multiple CE modules may be networked together to create a larger system.



LI122UN Room Controller: The LI122UN Room Controller provides connections for six Tek-CARE120 stations and one connection for the Tek-CARE120 data bus. In most instances, the room controller is installed outside a room in the same position as a traditional dome light. The two-conductor cable is used to connect Tek-CARE120 stations to the LI122UN Room Controllers. The rear of the room controller contains a 14-pin header. Pins 1-12 are used in pairs for station connections, and pins 13 and 14 are used to connect the room controller to the Tek-CARE120 data bus. The LI122UN annunciates high priority calls with red or blue LEDs and low priority calls with white LEDs. The LED colors can be changed on the room controller



CT160 Cable Adapter (CT160K pictured - CT160 with housing): The CT160 is designed to adapt a connection from a two-wire flying lead to an 8P8C connector. The CT160 may be connected to LI122UN and PM120 room controllers or can be ordered as the CT160K which includes housing.



SF506ES Wireless Smoke Detector: The SF506ES Wireless Smoke Detector a is self-monitoring smoke detector with two LEDs. The SF506ES alters the user when sensor maintenance is needed or batteries are low, and automatically supervises the radio link. Additionally, local test capability allows the user total visibility of the detector's functionality with a test button.

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Tek-CARE Wireless Transmitter Battery Information

The following table illustrates battery part numbers for various Tek-CARE wireless devices. BA004, BA501, BA502, and BA505 batteries may be ordered directly from TekTone.

TekTone wireless devices ship from our factory with batteries included.

Battery	BA004	BA501	BA502	BA505
Where Used	SF503UL SF504UL	SF501ES SF501/2ES	SF502ES	SF506ES SF515ES/UL SF520ES/UL SF521UL SF523UL SF525ES/UL SF527ES/UL SF529ES/UL SF530ES/UL SF531ES/UL

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Installation and Setup

Install and Enable the NC510ES/UL Receiver

Before the system can be fully set up, any NC510ES/UL Receivers that will be used must be installed and enabled. NC510ES/UL Receivers relay wireless radio messages from system transmitters to the Tek-CARE system.

The NC510ES Receiver communicates with EchoStream (ES) and UL 2560 transmitters. TekTone sells and supports ES and UL devices.

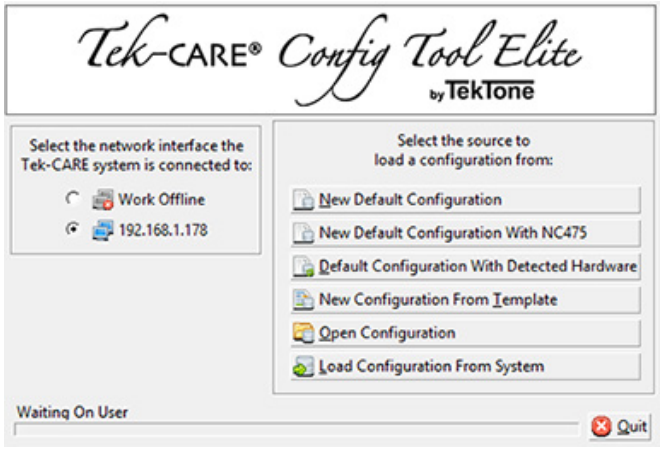
The NC510 Receiver communicates with older Frequency Agile (FA) transmitters. TekTone fully supports legacy FA devices and systems, but most devices and components are no longer sold or manufactured.

Connect the Receiver(s) to the NC475 Tek-CARE Central Equipment

1. Using the included mounting hardware, mount the receiver(s) in a location where they will not be tampered with, but are within wiring reach of the NC475 Tek-CARE Central Equipment.
2. Remove the cover from the receiver and refer to **Figure 1 on page 15** for the NC510ES/UL Serial Data Cable Connection Diagram. Connect the DB9 Serial Cable from the receiver to comm port 1 on the rear of the NC475 Tek-CARE Central Equipment.
3. Plug the included PK510 Power Transformer into an electrical outlet. The PK510 is included with the NC510UL.
4. Repeat steps 1-3 if a second receiver is to be installed on the NC475 Tek-CARE Central Equipment. Remember that only one NC510UL and one NC510ES can be simultaneously connected to the NC475 Tek-CARE Central Equipment.

Start the ConfigTool Software

Once the receivers to be used on the system have been installed and connected to the NC475 Tek-CARE Central Equipment, open the ConfigTool software by double-clicking the LS450 ConfigTool icon on the desktop of your programming laptop. The splash screen for the ConfigTool will appear as shown below. Depending on the facility's licensing and connectivity, there may be different options on the screen.



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If the NC475 Tek-CARE Central Equipment is connected to a larger Tek-CARE Network, select the IP address of the Tek-CARE Network in the left side of the splash screen, not the IP address of the NC475 Tek-CARE Central Equipment.

To work offline, select the **Work Offline** option. This is not recommended for initial system setup.

On the right side of the ConfigTool splash screen, select one of the available options. The available options are explained below.

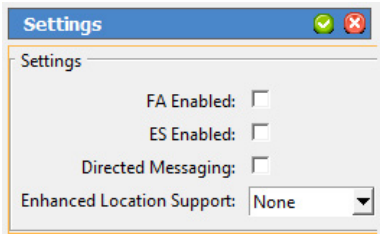
> **NOTE:** Choosing **New Default Configuration with Detected Hardware** detects the hardware connected to the Tek-CARE system without any custom programming. To retain custom programming, see **Load Configuration from System**.

- **New Default Configuration**: Select **New Default Configuration** to open a configuration with no active modules. Not recommended for most installations.
- **New Default Configuration with NC475**: If the Tek-CARE500 system will be a standalone system not connected to any other Tek-CARE modules, select **New Default Configuration with NC475** to open a configuration with all available, licensed options. Used when setting up a standalone Tek-CARE500 system.
- **New Default Configuration with Detected Hardware**: If Tek-CARE500 functionality is being added to an existing Tek-CARE system, but the existing system programming should be returned to a default state, select **New Default Configuration with Detected Hardware** to detect the hardware connected to the Tek-CARE400 Network and load the default programming for all stations, masters, modules, etc. that are attached to the system.
- **Open Configuration**: Select **Open Configuration** to open a saved configuration file.
- **Load Configuration from System**: If Tek-CARE500 functionality is being added to an operational Tek-CARE system, select **Load Configuration from System** to load the current working configuration with all custom programming from the existing Tek-CARE system into the ConfigTool. This option is used for most installations where Tek-CARE500 functionality is being added to an existing Tek-CARE system.

Once the ConfigTool has fully loaded, select **File→Save Configuration As** and choose a file name for the configuration you will be creating.

Enable the NC510ES and/or NC510UL Receiver(s)

Before the Tek-CARE system can communicate with wireless transmitters, the wireless system(s) in use by the facility must be enabled.

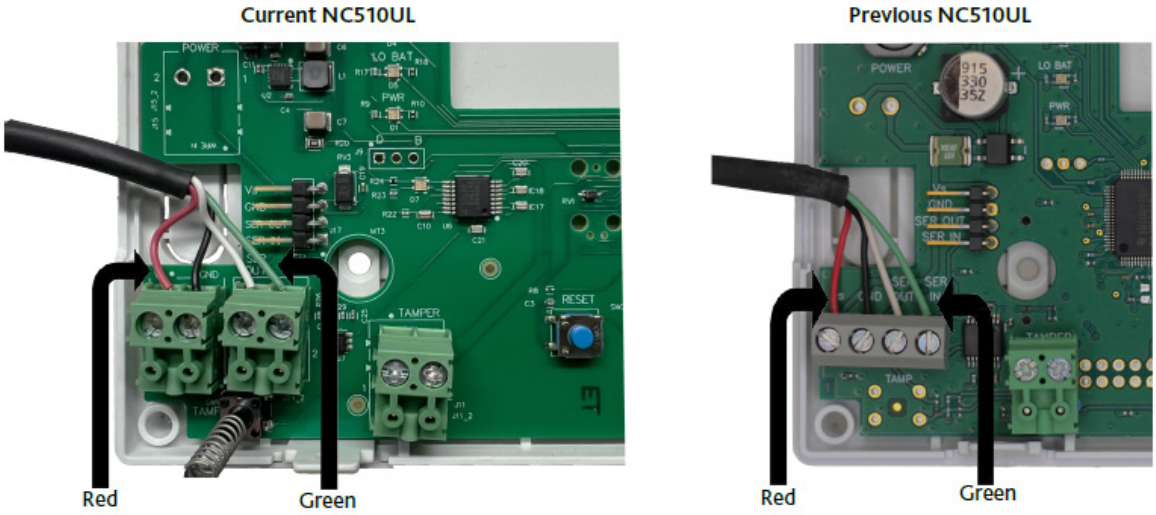


- Open the ConfigTool software.
- Select the **Transmitters** page in the page selection pane of the ConfigTool. Scroll over to the **Settings** editing pane and click the **Edit** button to unlock the pane for editing.
- Ensure that the **ES Enabled** and/or the **FA Enabled** box is checked, depending on which type of system is installed in the facility.
- Click **Apply** to accept the changes.

Select File→Save Configuration to save your programming changes, then select File→Commit Configuration to System to update the Tek-CARE system.

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Figure 1 - NC510UL Serial Data Wiring Connections



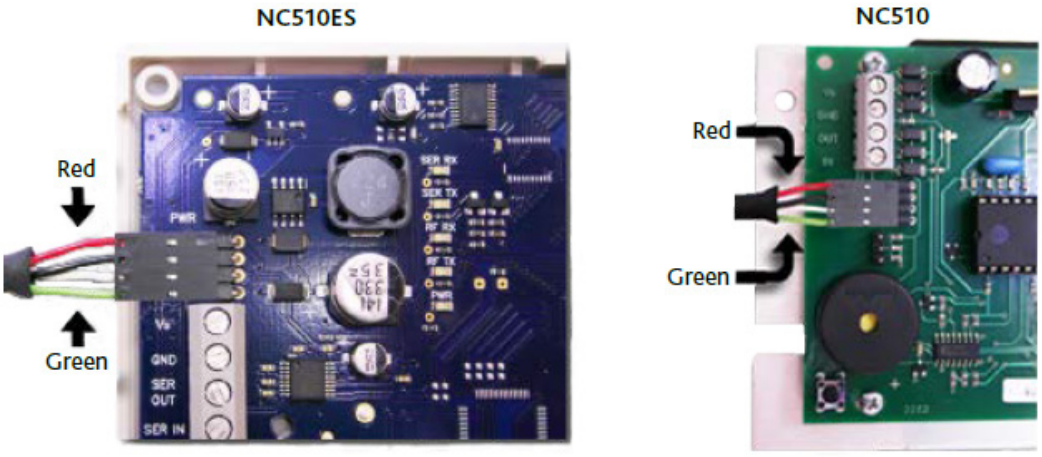
Remove the cover from the NC510UL Receiver and locate the 4-pin header on the bottom of the circuit board. Align the serial data wires as shown and gently connect the wires to the circuit board. Take care not to damage the pins or any other electronic components on the circuit board.



After wiring, gently replace the cover of the NC510UL Receiver.

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Figure 2 - NC510ES and NC510 Serial Data Cable Connections



Remove the cover from the NC510ES/NC510 Receiver and locate the 4-pin header on the bottom of the circuit board. Align the serial data connector as shown and gently connect the cable to the circuit board. Take care not to damage the pins or any other electronic components on the circuit board.



After connecting the serial cable, gently replace the cover of the NC510ES/NC510 Receiver.

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Add Facility Maps and Locations

The Tek-CARE system has the option to store maps of the care facility it is installed in. These maps can be used to view transmitter locations and, when adding patient information, associate a particular transmitter with a room, and thus an individual patient entry.

Locations are where transmitters are physically installed throughout the facility.

> **NOTE:** Locations must be defined whether or not facility maps are used. Each stationary device must be assigned to a physical location. Mobile devices are assigned to the Mobile location.

If you have Proximity Maps of your facility to add:

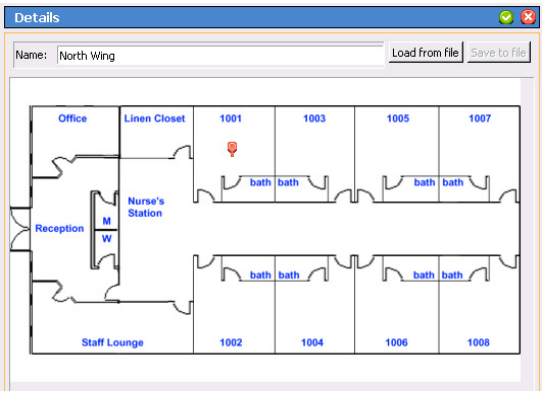
1. Using the ConfigTool, open the current configuration and ensure that the configuration containing the transmitters that have been added to the Tek-CARE500 system is loaded into the ConfigTool by choosing **File→Load Configuration from System**.
2. Copy your facility maps to the programming laptop hard drive running the ConfigTool. Proximity maps should be image files in any of these formats: BMP, GIF, JPG, JPEG or PNG.
3. Click on the **Locations** tab in the page selection pane of the ConfigTool.
4. Click on the **Add** button in the **Proximity Maps** editing pane.
5. Click on the **Load from File** button in the **Proximity Maps–Details** pane, browse to the first map you copied to the hard drive, and click the **Open** button.
6. Type a name for the map (such as Building 1, North Wing or 2nd Floor), and click **Apply**.
7. Repeat to add more proximity maps.

Add Locations (Start here if not using Proximity Maps):

1. If the configuration is not open in the ConfigTool, open it now.
2. Click on the **Add** button in the **Locations** editing pane.
3. In the **Locations–Details** pane, type a location name (such as a room number or room name such as Staff Lounge or Men's Room). If applicable, choose a room side.
4. If proximity maps were added, open the **Proximity Map** drop-down menu and select which proximity map you would like the location to be placed on.
5. Click the **Apply** button in the **Locations–Details** pane. If proximity maps are used, place markers for each location on the proximity map. When a location is selected from the list in the **Locations** pane, an orange marker will appear in the upper left corner of the proximity map.

   To move the marker to the correct position on the proximity map, select the location in the **Locations** list, and click the **Edit** button on the **Proximity Maps–Details** pane. Click and drag the orange marker on the proximity map to its corresponding location on the proximity map. When the marker has been placed in the correct position on the proximity map, click **Apply**.

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6. Repeat to add all locations to their proximity maps.

*Select **File→Save Configuration** to save your programming changes, then choose **File→Commit Configuration to System** to send the programming changes to the Tek-CARE500 system.*

Program ES and UL Transmitters

Adding ES and UL transmitters to the Tek-CARE system is accomplished by using the **ES Traffic** window available from the LS454 ConfigTool Live menu.

As transmitters are added to the system, **Device Numbers (Dev#)** are automatically assigned to each transmitter. As transmitters are added, label each device with its assigned **Dev#** and fill out the programming worksheet with all pertinent information. Another way to get the address is go to the Transmitters page and click **Add Barcode** in the LS450 ConfigTool. Enter the ID from the back of the transmitter and click **Add**. This will populate the device ID.

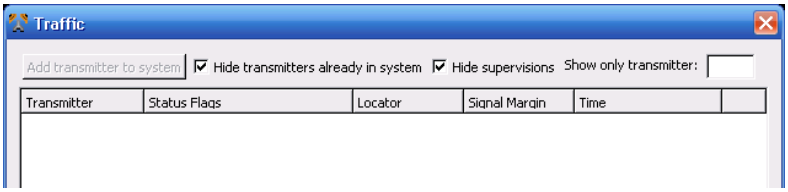
Failure to mark each transmitter with its **Dev#** or failure to fill out the programming worksheet will prolong and complicate installation.

All ES and UL devices except the **NC506ES**, **NC507ES**, and **NC505ES Remote Receivers** are added by following the steps below. To program a Remote Receiver, refer to the installation and operating instructions included with the device.

> **NOTE:** When installing a UL 2560 system, be sure to follow the system layout guidelines found in the section **Notes on UL 2560 Installations on page 6**.

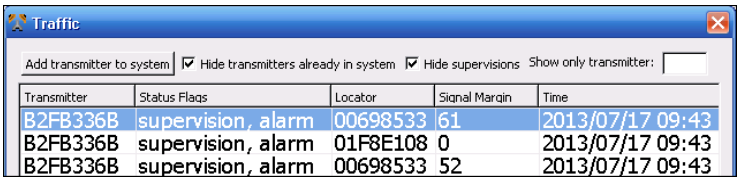
Adding ES and UL Transmitters with the LS454 ConfigTool Live

1. Ensure that the ConfigTool Live software is running. If it is not, double-click the **LS454 ConfigTool Live** icon on the PC running the ConfigTool Live and choose the appropriate network options from the splash screen.
2. Click the **Tools** button and select **ES Traffic** from the menu.
3. The **ES Traffic** window will open as shown below. At the top of the window, check the boxes labeled **Hide transmitters already in system** and **Hide supervisions**.



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4. Insert a battery into the device to be added to the system and place a call. For an SF530ES/UL Room Station, plug in a call cord. Place a call using the transmitter.
    - For a **NC511ES/UL Repeater/Locator**, refer to the included documentation to remove the top cover from the device. Plug in the backup battery as described, and locate the tamper switch labeled **TAMP** on the lower left corner of the circuit board. Press the switch to create call traffic. The call will appear in the **ES traffic** window. Proceed with adding the repeater as outlined in the following instructions.
    - Once the call has been received and the repeater has been added, connect the power transformer as described in the included literature and replace the cover of the repeater/locator.
5. In the ES Traffic Window, watch for a **Device ID** to appear as shown below. Select the call in the traffic list from the transmitter to be programmed and click the **Add transmitter to system** button.



6. The **Transmitters** register will appear in the ConfigTool. Verify that **ES** is selected from the **Transmitter Family** drop-down menu, the **Device ID** has been captured. If the transmitter will be used immediately, ensure the **In Use** box is checked.
7. Select the appropriate **Device Type** from the drop-down menu.
8. Type in a name for the transmitter. This field can either have a specific name or the transmitter ID can be pasted into the **Name** field.

    SF529ES/UL Note: If an SF529ES/UL Check-In/Assistance Call Station is being added, check the **Ignore Tamper** box.
9. For stationary transmitters, select the default **Nowhere location** from the Location drop-down list. Actual locations will be added and associated with transmitters later in the installation process. See **Assign Locations to Stationary Transmitters on page 20**.
10. Choose the supervision interval. For UL devices, select **60 min**. For ES devices, select 3 min. The **Timeout** field will update automatically.

    NOTE: Tek-CARE software versions prior to v.7283 do not allow the supervision interval for devices to be changed. Tek-CARE500 devices with warranty numbers higher than #N6768730 require a timeout setting of 1 day. A software update to v.7283 makes the timeout change automatic when the 60-minute supervision interval is selected.

    If a Tek-CARE500 device with warranty number higher than #N6768730 is to be added to an older system without updating the Tek-CARE software, the facility must update their software to a newer version.
11. Pendant transmitters will be automatically assigned to the **Mobile** location. Do not select a patient for the pendant transmitters to be associated with at this time.
12. Click the **Apply** button to add the transmitter to the system, then reset the call from the transmitter.
13. Repeat for all remaining transmitters. Keep the ConfigTool Live software open once all transmitters have been added.
14. Open the ConfigTool software. When prompted, choose **Load Configuration from System** on the splash screen.
15. If the ConfigTool is already running, choose **File→Load Configuration from System** to ensure that the most current system configuration is open for editing.
16. Select **File→Save Configuration.**

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Assign Locations to Stationary Transmitters

When transmitters are added to the system, they are assigned to a default location. Pendant transmitters have been assigned to the **Mobile** location, and **NC511UL Repeater/Locators**, **NC511ES Repeater/Locators or NC512 Locators** are used to help determine their locations within the facility. For stationary transmitters, the Nowhere location is selected by default during programming. In this step, stationary transmitters will be assigned to specific locations within the facility.

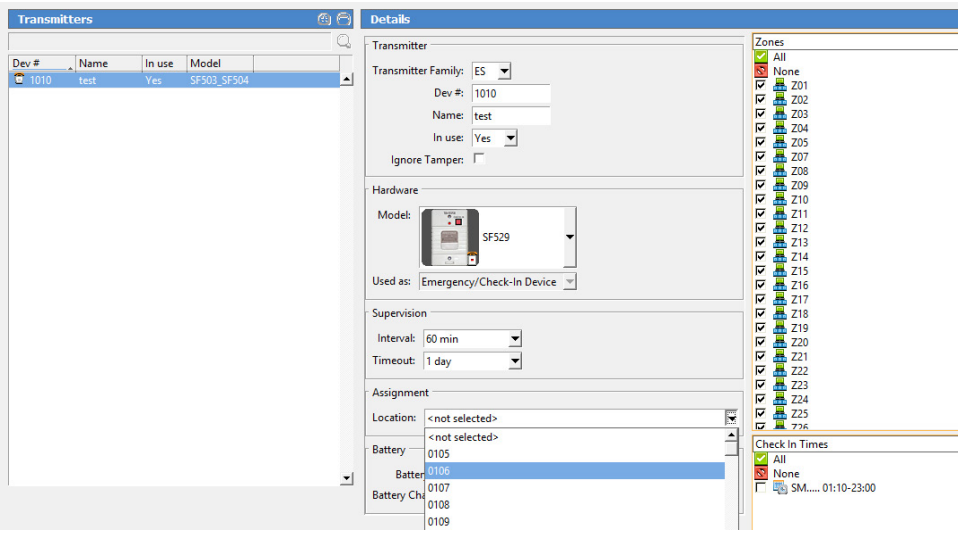
Locators and repeater/locators are also assigned to locations in this step. It is important to remember that locators and repeater/locators only provide general location information based on the signal strength of the transmitted message from the mobile transmitter. Location information is more accurate in single-story facilities.

> **NOTE**: If there is a dome light associated with the location, calls triggered from the transmitter will activate the dome light.

As the transmitters were added, the programming worksheet should have been filled out with information about where each transmitter will be located. This information will be used to program the location information for each transmitter.

Add Location Information to Transmitters

1. Click **Transmitters** in the page selection pane of the ConfigTool. The transmitters page is shown below.
2. Select a transmitter to be associated with a location by selecting its **Dev#** from the list in the **Transmitters** pane.
3. With the transmitter selected, click the **Edit** button in the **Details** editing pane to unlock the pane for editing.
4. Choose a location from the **Location** drop-down menu. Click the **Apply** button. Repeat for all additional transmitters.



*Select **File→Save Configuration** to save your programming changes, then choose **File→Commit Configuration to System** to send the programming changes to the Tek-CARE500 system.*

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Install Transmitters in the Facility

Once all transmitters have been added to the system and locations have been added to the Tek-CARE system, it is time to physically install the transmitters throughout the facility. Referring to the programming worksheet, install each device in its assigned room.

When mounting TekTone wireless devices, the mounting hardware that is included with the transmitter must be used to avoid RF interference. Do not use metal backboxes to install TekTone wireless devices.

If surface mounting boxes are required, contact TekTone to purchase the **IH521K** (single) mounting kits for the SF521/523UL stations.

Be sure to adhere to local building codes when mounting stationary transmitters. If transmitters are to be mounted in wet environments, use the appropriate weatherproof enclosures and waterproof devices.

Device Specific Installation Instructions

Important Information on the PK505 Power Transformer

The PK505 Power Transformer is used to power some Tek-CARE500 wireless receivers.

The following Tek-CARE500 devices require the use of the PK505 Power Transformer:

- NC505ES Remote LCD Receiver
- NC506ES Remote Receiver
- NC507ES Remote LCD Receiver

Each PK505 must be dedicated to an individual device. Multiple devices may not be powered from a single PK505.

Device Mounting

Tek-CARE500 wireless devices may be mounted in the following ways:

- Surface mount on drywall (Must use drywall anchors)
- Surface mount on headwall
- Mounted on plastic backboxes
- Surface mount on wood

When installing Tek-CARE wireless devices, take care to install devices according to applicable building codes. Never mount Tek-CARE500 wireless devices in or on metal backboxes. Metal backboxes will interfere with signal transmission. Specify plastic backboxes for Tek-CARE500 wireless device mounting.

Test Transmitters after Installation

TekTone recommends testing each device immediately following installation. For smaller facilities, simply place a call from each transmitter and check the NC475 Tek-CARE Central Equipment. As calls are placed, make sure that the location in the ConfigTool correlates with the location noted on the programming worksheet.

In larger facilities, testing of installed devices may be simplified by using a portable laptop. Once the ConfigTool is set up, the laptop may be carried throughout the facility and used to monitor calls placed from transmitters during testing.

This step helps to identify any errors early in the installation process so that the rest of the installation goes smoothly. Use the completed programming worksheet to verify that transmitters have been installed in the correct locations.

Be sure to note any problem areas and remedy them before proceeding with the installation process. In some cases, adding additional NC511ES or NC511UL Repeater/Locators may be necessary to ensure clear communication between system transmitters and the NC475 Tek-CARE Central Equipment. See **Test the SF506ES Wireless Smoke Detector on page 23** for specific testing procedures for the SF506ES.

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SF506ES Wireless Smoke Detector

Activate the Battery

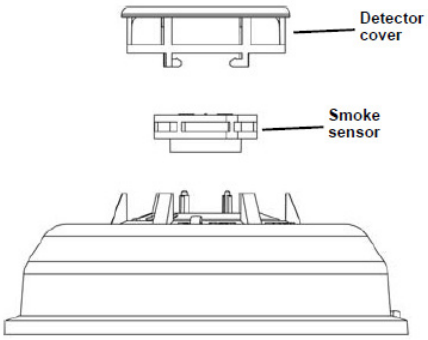
1. Remove the orange dust cover.
2. Twist the detector counterclockwise to lift it off of the mounting base.
3. Remove the plastic tag in the battery compartment to connect the battery.
4. Ensure the battery is seated.

Mount the Smoke Detector

1. Use the included mounting screws and drywall anchors to mount the smoke detector base.
2. Fit the detector inside the base by aligning it over the base and turning it clockwise until it clicks into place.
3. Test the smoke detector (see instructions below).

Clean the Smoke Detector

1. Disable the zone or system to prevent any unwanted alarms.
2. Turn the detector counter-clockwise and remove from mounting base.
3. Remove the battery from the unit.
4. To ensure complete power down, wait 20 seconds.
5. Turn the detector cover counter-clockwise and remove.
6. Lift the smoke sensor to remove.



7. Remove any dust or debris from the detector cover, smoke sensor, and all other chamber sections using a vacuum or canned air.
8. Align the arrows on the detector cover with the line on the smoke detector and press down firmly until it is fully seated.
9. Place the detector cover over the smoke sensor and turn clockwise until it snaps into place.
10. Reinstall the battery, noting proper orientation. The red and green LEDs will flash once every five seconds for approximately 20 seconds until the power-up cycle is complete.
11. Reinstall the detector then test it.

> **NOTE:** If this procedure is not followed, the detector may indicate maintenance trouble after the power-up sequence is complete. In this case, remove the battery for 20 seconds, then re-install.

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Test the SF506ES Wireless Smoke Detector

There are two ways to test the wireless smoke detector sensor. The system test should be performed every week; the smoke test should be performed at least once a year. The wireless smoke detector should also be tested after initial registration, as well as each time the smoke chamber is cleaned or the batteries are replaced.

System Test:

1. Use a small screwdriver or Allen key with maximum diameter of 0.18" to push and hold the recessed test button for a minimum of five seconds.
2. Ensure the sounder activates, the red LED lights briefly, and the Tek-CARE system-connected master/monitor/phone receives a low-priority **Test** alarm, followed a few seconds later by a restoral.

   NOTE: If you are performing a system test directly after an initial power up or battery replacement, you may need to press the recessed test button twice. If the device fails to respond with the first button press, press the recessed test button again.

Smoke Test:

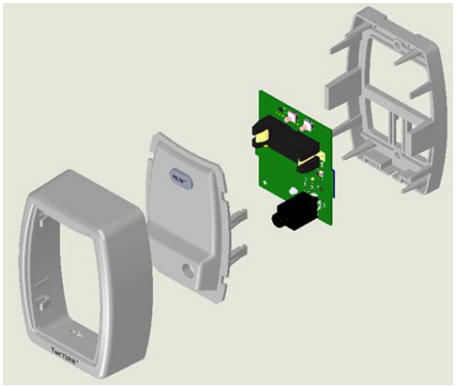
1. Use aerosol simulated smoke, such as ESL Smoke! In a Can® (ESL Part No. SM-200) to perform the smoke test. Or perform a smoke test by holding a smoldering punk stick or cotton wick at the side of the detector and gently blow smoke through the detector until it alarms.
2. Ensure the sounder activates, the red LED lights briefly, and the Tek-CARE system-connected master/monitor/phone receives a **Primary** alarm, followed a few seconds later by a restoral.

Station Assembly Instructions

SF521UL Single Patient Stations: The SF521UL is shipped with the battery switch in the OFF position. Move the battery switch to the ON position before mounting the station. SF521UL stations are installed on 1-gang mounting rings or backboxes. Mount the station using an IH521K mounting kit. The station snaps into the kit's plastic bezel and then onto the kit's surface mounting plate, leaving no visible screw holes.

Figure 3 - SF521UL Battery On/Off Switch and Assembly





SF523UL Two-Button Pull-Cord Station: The SF523UL is shipped with the battery switch in the OFF position. Move the battery switch to the ON position before mounting the station. SF523UL stations are installed on 1-gang mounting rings or nonmetallic backboxes. The SF523UL has three different insert options including "Call for Help", a Nurse Hat and "Check In/Assist." Slide the desired call type insert into the slot on the front of the station. Snap the circuit board into the front bezel by spreading the face of the bezel while placing the circuit board into the retaining clips.

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Figure 4 - SF523UL Battery On/Off Switch and Assembly



Correct installation is essential to ensure reliable operation of the SF523UL. Follow the instructions below for proper installation steps. The pull cord and triangle slider must be installed *before* mounting the backplate to the wall.

First, insert the triangle slider into the back of the backplate, ensuring the ridges are facing up. Press firmly until the slider snaps securely into the backplate tracks.

Next, thread the pull cord string up through the hole nearest the tip of the slider, then thread it back down through the center hole. The short end of the string should now extend down through the triangle slider. Slide a brass ferrule onto the short end, tie a tight overhand knot, and pass the end through the ferrule. Crimp the ferrule securely and trim any excess string. See photos **on page 25**. Watch the installation video at http://www.tektone.com/sf523UL-pull-cord-install, or scan the QR code below.

Figure 5 - SF523UL Pull Cord Installation Video

After the pull cord is installed on the slider, cut the pull cord string to the desired length. Slide the plastic pull cord handle onto the cord, followed by a brass ferrule. Once again, tie a tight overhand knot and pass the short end through the ferrule. Crimp the ferrule securely and trim any excess string.

Once the pull cord assembly is complete, move the plastic slider to the uppermost position.

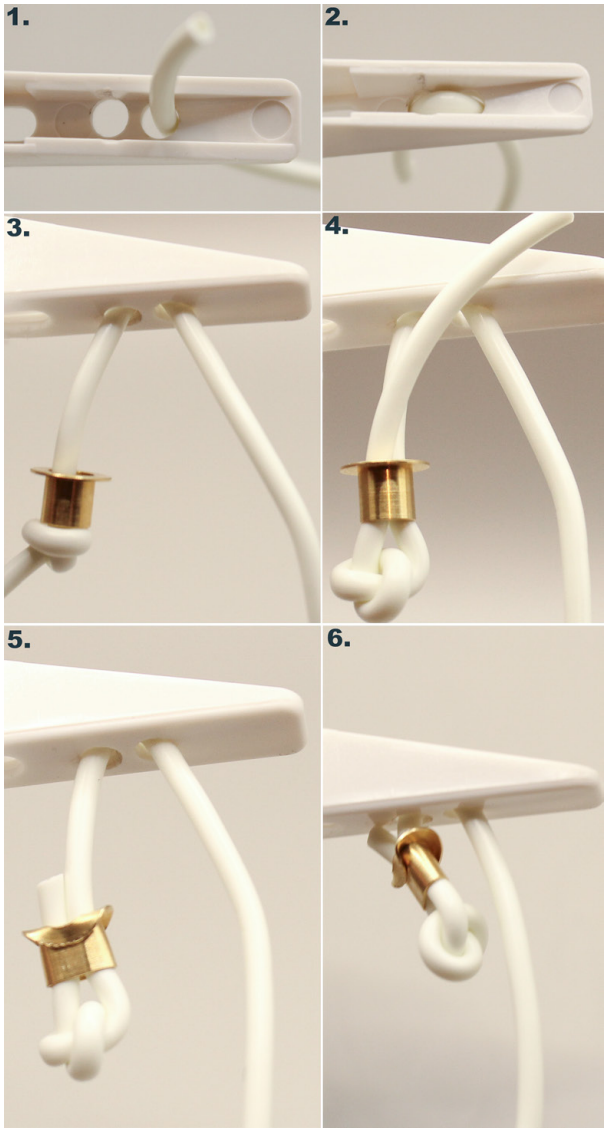
> **Note: Push the slider up into the retaining nibs on the rear bracket. Failure to push the slider up and secure it will result in station damage during installation. This step is critical to prevent damage to the circuit board-mounted button during installation. Repeat this step anytime the faceplate has been removed from the backplate, ex. battery replacement.**

After the pull cord is fully assembled, mount the backplate to the wall to continue installing the SF523UL.

Mount the station using an IH521K mounting kit.

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Figure 6 - SF523UL Pull Cord Installation



Add Custom Patient Information Fields

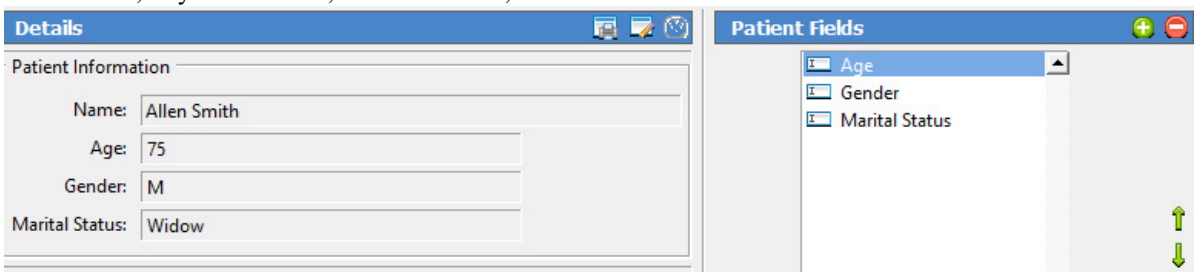
In addition to patient names and locations, the Tek-CARE500 system can be customized to store any other patient data desired by the facility such as home address, medications, physician information, or food allergies.

To add custom fields for additional patient information:

1. Click **Patients** in the page selection pane of the ConfigTool.
2. Click on the **Add** button in the **Patient Fields** area.
3. Type a name for the field in the **Patient Fields–Details** area, and click on the **Apply** button. Only use letters and numbers when adding new fields. Example field names include Age, Allergies,

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Medications, Physician Phone, Relative Phone, etc.



4. Click on the **Add** button in the **Image** section to include an image of each patient.
5. Repeat to add more custom fields.
6. Fields appear in the **Patients–Details** area in the order in which they are entered. To change the sequence, click on a field name in the **Patient Fields** area, and then click on the green up and down arrows at the right to move the field up or down.

*Select **File→Save Configuration** to save your programming changes, then choose **File→Commit Configuration to System** to send the programming changes to the Tek-CARE500 system.*

Change the Default Occupant Term

By default, the Tek-CARE system comes preprogrammed with **Patient** as the default occupant term. This term may be changed to suit the facility the Tek-CARE system is installed in.

Changing the occupant term will also change the name of the **Patients** page in the ConfigTool and any references to the occupant term in generated reports.

Changing the Occupant Term

1. Click **Patients** in the page selection pane of the ConfigTool.
2. Scroll to the **Patient Settings** pane and click **Edit**.
3. Type the desired occupant term into the **Occupant Term** field, and click **Apply** to save the changes.

   NOTE: Be sure to use the singular form of the desired occupant term. The Tek-CARE software automatically makes the term plural. For example, if the facility prefers “residents” as their occupant term, type **Resident** in the occupant term field. If the plural form is entered in the occupant term, it will display as Residents.

Select **File→Save Configuration** to save your programming changes, then choose **File→Commit Configuration to System** to send the programming changes to the Tek-CARE500 system.

Modifying, Creating, and Removing Zones

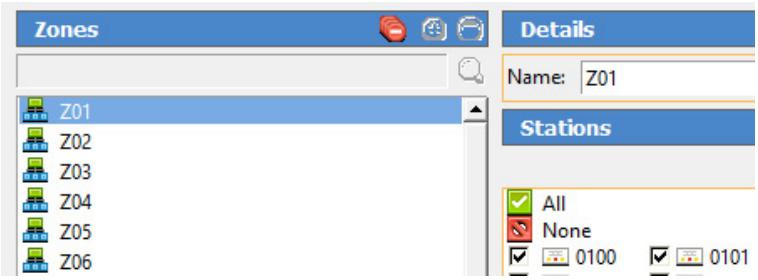
Use the information in this section to set up zones. Transmitters will be assigned to zones later using the ConfigTool. Zones are used to assign a group of transmitters to send automatic text messages to the pagers of selected staff or staff groups.

The system has 75 preset zones named Z01 through Z75. Each of these zones is preconfigured to include all transmitters. Preset zones may be renamed or deleted, and new zones can be created.

Rename preset zones to names that have meaning for the facility’s staff.

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In the ConfigTool, select **Zones** from the page selection pane. The **Zones** page will appear, as shown below. Click on a zone in the **Zones** list and then click on the **Edit** button in the **Details** area. Type a new name and click on the **Apply** button.



By default, each preset zone contains all transmitters. To assign transmitters to zones on an individual basis, see the following section, Assign Transmitters to Zones.

Delete Unneeded Preset Zones

Select the zone to be deleted from the zones list and then click the **Delete** button.

Add Additional Zones

Click on the **Add** button, type a name in the **Details** area, and then click on the **Apply** button. This new zone will not include any transmitters until transmitters are added by selecting the stations to be contained in that zone from the **Stations** editing pane.

*Select **File→Save Configuration** to save your programming changes, then choose **File→Commit Configuration to System** to send the programming changes to the Tek-CARE500 system.*

Assign Transmitters to Zones

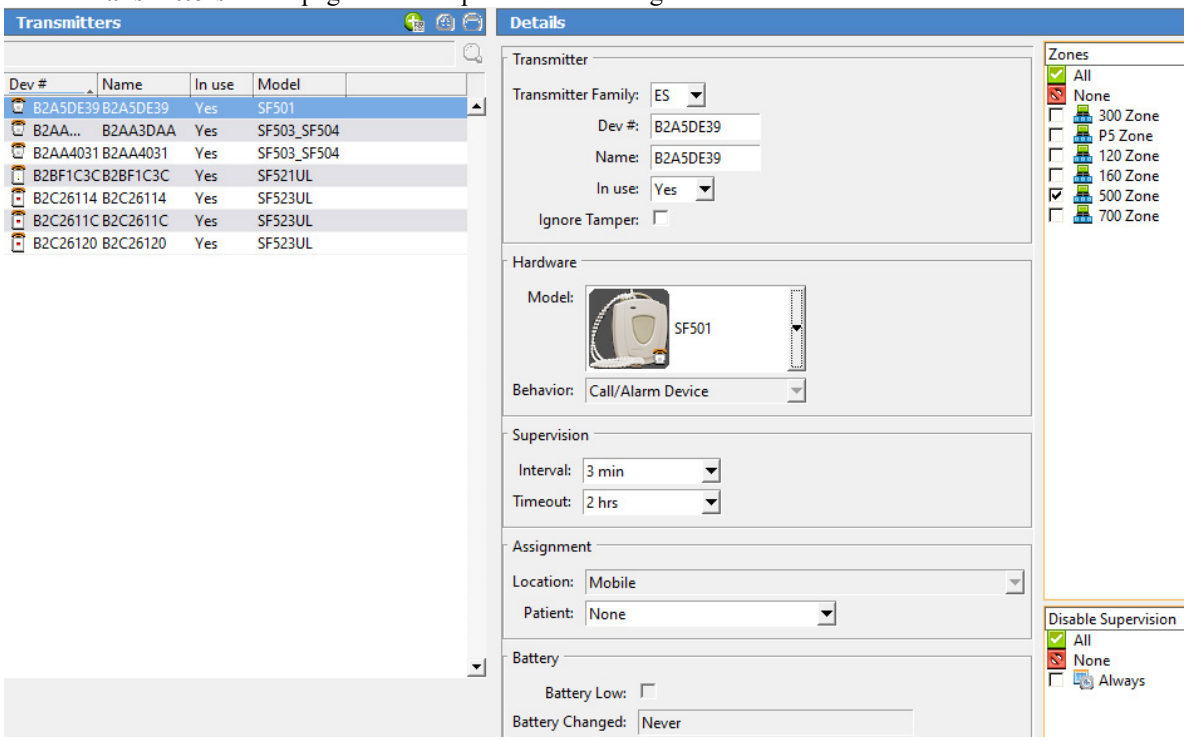
In this step, transmitters will be assigned to zones created in the previous step. Refer to the completed programming worksheet for transmitter device numbers and locations.

Transmitters may be assigned to individual zones using the ConfigTool software.

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Assign Transmitters to Zones using the ConfigTool

1. Select **Transmitters** in the page selection pane of the ConfigTool as shown below.

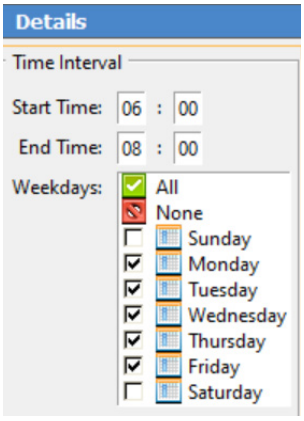


2. Select a transmitter from the **Transmitters** list.
3. Click the **Edit** button in the **Details** editing pane to unlock the pane.
4. Select the zones that the transmitter should be assigned to from the **Zones** list. Transmitters may be assigned to any and all zones present on the system.
5. Once all required zones have been assigned, click **Apply** to accept the changes.

*Select **File→Save Configuration** to save your programming changes, then choose **File→Commit Configuration to System** to send the programming changes to the Tek-CARE500 system.*

Create Patient Check-In Times

If the facility uses **SF521UL, SF523UL, SF525ES, SF525UL, SF529**, **SF529ES**, or **SF529UL Check-In/Assistance Call Stations**, check-in times must be added to the system for the check-in feature to function. A check-in time is a time period during which the system requires patients to press their rooms' check-in buttons.



Create several check-in times so that each patient can be assigned a check-in time that coincides with their normal waking schedule. Patients can also be assigned one check-in time for weekdays and another for weekends. The table to the right illustrates some sample check-in times.

Create Check-In Times:

1. Click on the **Check In** tab in the ConfigTool.
2. Click on the **Add** button in the **Check In Times** area.

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3. Using 24-hour Military time, enter a **Start Time** and an **End Time** in the Details area. Midnight is 00:00. Start and End times must be at least 10 minutes apart.
4. Use the checkboxes to select which days of the week this event is scheduled.
5. Click the **Apply** button.

*Select **File→Save Configuration** to save your programming changes, then choose **File→Commit Configuration to System** to send the programming changes to the Tek-CARE500 system.*

Create Custom Staff Types

The Tek-CARE system comes pre-programmed with three different staff types—L1, L2, and L3. These staff types can be edited to reflect the staff types present in the facility, existing staff types may be deleted, and new staff types may be added. Do not edit the **None** staff type.

> **NOTE**: This manual makes multiple references to staff types None, L1, L2, and L3 which are the system defaults. The labels her do not change the label on the masters or the apps. If the system defaults are edited, note the changes that are made here:

L1 Changed To: _____ L2 Changed To: _____ L3 Changed To: _____

Changing or Customizing Staff Types

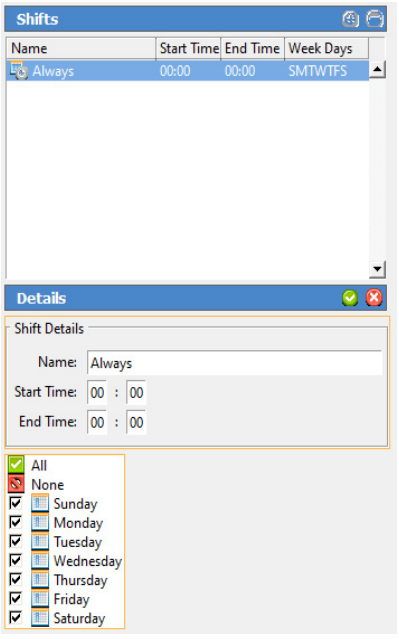
1. Click **Staff** in the page selection pane of the ConfigTool.
2. To edit an existing staff type, select an entry from the **Staff Types** list and click **Edit** in the **Details** pane below. Type a new name for the selected staff type, and click **Apply**.
3. To delete an existing staff type, select an entry from the **Staff Types** list and click **Delete**.
4. To add a new staff entry, click **Add** in the **Staff Types** pane and type a name in the **Details** pane below, then click **Apply** to accept the changes.

*Select **File→Save Configuration** to save your programming changes, then choose **File→Commit Configuration to System** to send the programming changes to the Tek-CARE500 system.*

Create Shifts

Shifts are used to schedule time periods when central monitoring is enabled, when supervision of a transmitter is disabled, when specific pagers annunciate calls, and more.

The Tek-CARE500 system comes preprogrammed with an Always shift that is active 24/7. Use this shift if features that use shifts (Paging, Email Output, etc.) are to be constantly active.



Create Shifts

1. Click on **Assignments** in the page selection pane of the ConfigTool.
2. Click on the **Add** button in the **Shifts** area, shown to the right.
3. In the **Shift Details** area, type a name for the shift describing what the shift is to be used for.
4. Using 24-hour time, enter a **Start Time** and an **End Time** in the **Shift Details** area. (Midnight is 00:00.) Start and End times must be at least 10 minutes apart.
5. Use the checkboxes to select which days of the week this event is scheduled.

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6. Click on the **Apply** button.
   NOTE: A single time period cannot cross midnight into the next day. Divide it into two time period entries. For example, create these two entries to create a scheduled time period of 6:00 PM Friday to 10:00 AM Saturday:

Begin — 18:00	End — 23:59	Day — Friday
Begin — 00:00	End — 10:00	Day — Saturday

*Select **File→Save Configuration** to save your programming changes, then choose **File→Commit Configuration to System** to send the programming changes to the Tek-CARE500 system.*

Removing Transmitters from the Tek-CARE500 System

Remove Transmitter from Configuration using the ConfigTool

1. Open the ConfigTool. Choose the appropriate network settings and choose **Load Configuration From System.**
2. Choose **Transmitters** from the page selection pane and select the transmitter to be removed in the Transmitters list. With the appropriate transmitter selected, click the **Delete** button.
3. The transmitter is removed from the configuration.

*Select **File→Save Configuration** to save your programming changes, then select **File→Commit Configuration to System** to update the Tek-CARE system.*

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System Customization

Once the Tek-CARE system is set up and has been successfully tested, customize the system to suit the needs of the facility it is installed in. Some of the steps in system customization include adding facility staff and patients, finalizing email reporting, creating shifts and staff groups, and assigning transmitters to zones.

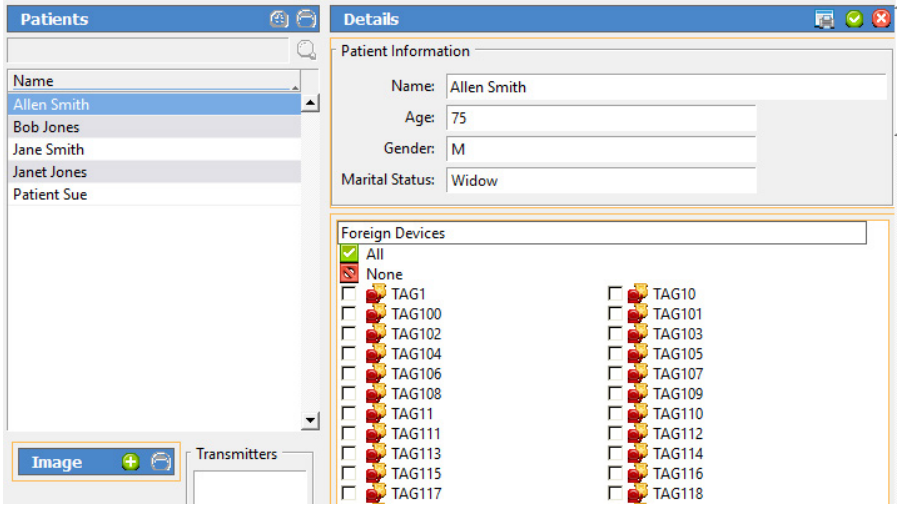
This portion of the installation may be performed either by the installation technician or by facility staff since setup may include sensitive medical records and other personal patient information. Many of the functions in this section can be performed using the LS450 ConfigTool.

Add Patients and Assign Them to Locations

Patients may be added to the Tek-CARE system in the ConfigTool.

Add Patients in the ConfigTool

1. Open the ConfigTool software. When prompted, choose **File→Load Configuration from System** to ensure that the most current system configuration is open for editing.
2. Select **Patients** from the page selection pane. The **Patients** page is shown below.



3. Under **Patients**, click **Add** and type in the **Name** as well as any custom information fields that have been added.
4. Select a default location for the patient from the **Default Location** drop-down menu. If the patient's default location is a two-bed room, select the **Default Side** for that patient.
5. If the patient is to be assigned to more than one location, check the appropriate boxes in the Locations list below the **Default Location** drop-down menu.
6. To add a patient photo, click **Add** in the Image pane and browse to the location of the photo. Click **Open** to use the photo as the patient image. The image can be any of the following formats: BMP, JPG, GIF, or PNG.
7. Click **Apply** to add the new entry to the patient list.
8. Repeat for each additional patient to be added.
9. Select **File→Save Configuration** to save the updated configuration and then **File→Commit Configuration to System** to send the configuration.

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Assign Pendant Transmitters to Patients

In this step, pendant transmitters that were added to the system during system setup will be assigned to patients added to the system in the previous step. During this step, refer to the programming worksheet that was created during system setup.

Assign Pendant Transmitters to Patients in the ConfigTool

1. Open the ConfigTool software and choose **File→Load Configuration from System** to ensure that the most current system configuration is open for editing.
2. In the page selection pane, choose **Transmitters** and select a pendant transmitter from the transmitters list in the Transmitters page.
3. In the **Details** pane, click **Edit**.
4. In **Details→Assignment**, choose a patient name from the Patient drop-down list that corresponds to the completed programming worksheet.
5. Click **Accept**.
6. Repeat for each additional pendant transmitter.
7. When all updates have been made, save the configuration, then select **File→Commit Configuration to System**.

Assign Check-In Times to Check-In Transmitters

In this step, check-in times created during system setup will be assigned to their corresponding check-in transmitters. Check-In times must be assigned in the ConfigTool.

Assign Check-In Times to Transmitters

1. In the ConfigTool, click the **Registers** button, and then choose **Transmitters** from the registers list.
2. Click on the **Dev**# of a check-in transmitter in the list at the left. Refer to your completed programming worksheet to determine which area of the facility the transmitter is located in.
3. Click on the **Check In** tab in the **Transmitters–Details** area. This tab is only available for transmitters that have been configured as check-in devices.
4. Click on the **Edit** button in the **Transmitters–Details** area, select one or more Check-In Times, and click the **Apply** button. Assign just one check-in time per day to a transmitter, although one check-in time may be assigned for weekdays and another for weekends.
5. Click **Apply** to accept the changes.
6. Repeat to assign check-in times to other transmitters.
7. In the ConfigTool, choose **File→Load Configuration from System** to ensure that the most current system configuration is loaded into the ConfigTool. Once the configuration is loaded select **File→Save Configuration** to update the saved configuration.

Add Facility Staff and Associate Staff Devices

Skip this step if the facility does not require the use of paging or email communication. In this step, staff members will be added to the system and assigned to pagers or email addresses. Pagers and email addresses were added to the system in the **Set Up Paging on page 36**.

Add Facility Staff in the ConfigTool

Open the ConfigTool software. When prompted, choose **Load Configuration from System** on the splash screen.

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1. Choose **Staff** from the page selection pane. The **Staff** page will appear.
2. To add a new staff member, click the **Add** button to unlock the **Details** editing pane. Type the staff member's name in the **Name** field, select the correct type (if any) from the **Staff Type** drop-down menu, and check the **Active** box to enable the staff member.
3. Check the boxes in the **Paging**, **Phones**, and **Email Address** list for which choices to associate with the new staff member. If the staff member is to be assigned to one or more home zones, check the appropriate boxes in the **Home Zones** list as well. If the staff member is to be assigned to all zones, leave all zones checked.
4. Click **Apply** to add the new staff member to the system.
5. Repeat for each additional staff member.
6. When all updates have been made, select **File→Save Configuration** and **File→Commit Configuration to System.**

Create Staff Groups

Skip this step if the Tek-CARE system does not include the use of paging or email communication. A staff group is a group of facility staff members that have similar characteristics—for example, the staff members work the same shift, cover the same zone, are all nurses, or are all aides. A staff member can be added to multiple staff groups.

Staff groups are used to send custom text messages to the pagers of a specific group of staff members. They may also be used to create staff assignments for automatic text messages.

Creating Staff Groups in the ConfigTool

1. Open the ConfigTool software. When prompted, choose **File→Load Configuration from System** to ensure that the most current system configuration is open for editing.
2. Select **Staff** from the page selection pane and click **Add** in the **Staff Groups** pane.
3. Type a name in the **Name** field of the **Staff Groups→Details** pane to give a name to the new staff group.
4. Check the boxes of the staff members to be added to the new staff group.

   NOTE: Staff members may be added to multiple staff groups.
5. Once all staff members have been selected, click **Apply** to create the new staff group.
6. Repeat for each additional staff group.
7. When all updates have been made, choose **File→Save Configuration** and select **File→Commit Configuration to System**.

Create Staff Assignments

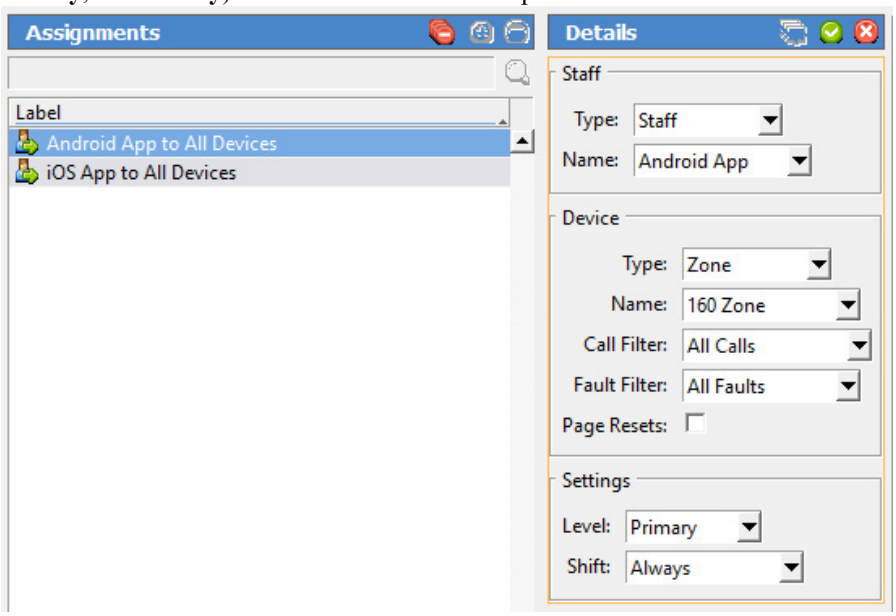
Assignments define which calls are sent to each staff device. They are used to assign shifts to staff and staff groups, which determines when they will receive calls. They are also used to assign patient stations and/or zones to staff and staff groups, which determines which patient stations will send them calls. If you need additional shifts, refer to **Create Shifts on page 29**.

Create Staff Assignments in the ConfigTool

1. Open the ConfigTool software. When prompted, choose **Load Configuration from System** on the splash screen. If the ConfigTool is already running, choose **File→Load Configuration from System** to ensure that the most current system configuration is open for editing.
2. Choose **Assignments** from the page selection pane. The **Assignments** page will appear.

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3. In the **Details-Staff** pane, choose the **Staff Type** (**Staff**, **Group**, or **All Staff**) and the **Staff Name** (the name of a staff member or a staff group) from their respective drop-down menus.
4. In the **Details-Device** pane, select the appropriate **Type** (**Station**, **Transmitter**, **Zone**, **Foreign**, or **All Devices**), **Name** (determined by the **Type** selection), **Call Filter** (**All Calls**, **No Calls, Only Code**, **High Priority Calls**, or **All But Presence**), and **Fault Filter** (**All Faults**, **No Faults**, **Missing**, or **Maintenance**) settings. To send a page when a call is reset, check the **Page Resets** box.
5. From the **Details-Settings** pane, choose the **Level** of the staff member or group (**Primary**, **Secondary**, or **Tertiary**) and the **Shift** from the drop-down menus.



6. Click **Apply** to add the assignment.
7. Repeat for all additional staff assignments.
8. When all updates have been made, select **File→Save Configuration** to update the saved configuration file. Once the configuration has been saved, select **File→Commit Configuration to System**.

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Update Saved Configuration and Print Central Monitoring Device List

System configuration should now be complete, and the system should be completely functioning. It is now time to save and back up the final system configuration. Once complete, the USB flash drive containing the backup should be turned over to the facility for safekeeping.

TekTone recommends that the installing company create a second backup of the initial configuration that is archived by the installing company for maintenance purposes.

Create the Final Backup

1. Open the ConfigTool software. When prompted, choose **Load Configuration from System** to ensure that the most current system configuration is open for editing.
2. Select **File→Save Configuration** to update the configuration saved on the programming laptop.
3. Insert the included TekTone USB flash drive into any available USB port.
4. In the ConfigTool, select **File→Save Configuration As…** and browse to the USB flash drive. Type in a file name and click **Save**.
5. If a configuration already exists on the flash drive, do not overwrite the old configuration, Instead, save the new configuration with the date in the filename.
6. Safely eject the flash drive and remove it from the NC475 Tek-CARE Central Equipment. In the ConfigTool, select **File→Commit Configuration to System**.

Print the Central Monitoring Device List

The Central Monitoring Device List is used by the central monitoring facility to match the ID that is transmitted with an event to a patient's name and location.

To create the device list, click on the **Tools** menu at the top of the ConfigTool window and then select **Central Monitoring Device List**. The device list will appear in a browser window. Print the list and provide it to your central monitoring facility.

Exit the ConfigTool software and turn the flash drive over to the facility.

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Optional System Features

Add Dome Lights to the Tek-CARE500 System

Dome lights can be added to a Tek-CARE500 system by networking a Tek-CARE120 NC120 module and LI122UN dome lights. All Tek-CARE500 ES and UL wireless devices may be used to activate dome lights.

Once networked, all features of the Tek-CARE120 are available on the system, including hardwired call devices. More than one device can activate a dome light.

Required licenses for network connectivity are:

- LS500
- LS120

Reference IL992 Tek-CARE120 installation manual for all installation and programming instructions.

Reference IL855 Tek-CARE ConfigTool manual for detailed tools and feature programming instructions.

Set Up Paging

Skip this step if your system does not include either pagers, mobile apps, or the **LS453 Email Output Software**.

Pagers supplied by TekTone are programmed with unique identifying CAP codes, which are used to add pagers to the Tek-CARE system. The system includes several standard text messages that can be sent to pagers —custom text messages can also be added.

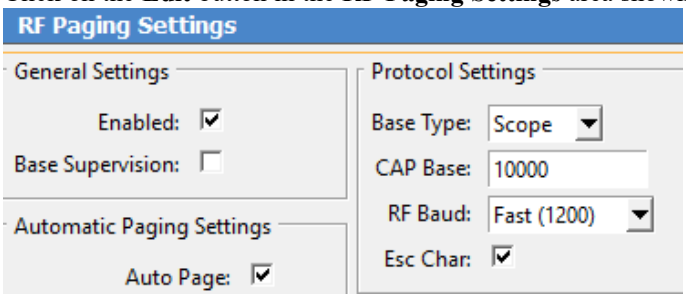
In this section, the paging transmitter will be set up, and all pagers will be added to the system. Pagers will be associated with individual staff members when staff members are added to the system in **Add Facility Staff and Associate Staff Devices on page 32**.

The Tek-CARE system utilizes a **NC365B Paging Transmitter** to communicate with RF pagers. This paging transmitter includes a separate setup manual to help configure the transmitter for use with a Tek-CARE system. Complete the paging transmitter setup process before proceeding.

> **NOTE:** Paging must also be enabled if messaging for mobile apps and **LS453 Email Output Software** will be used.

Enable Paging

1. Click on **Pagers** in the page selection pane of the ConfigTool.
2. Click on the **Edit** button in the **RF Paging Settings** area shown below.



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3. Check the box next to **Enabled** to turn paging on.
4. Protocol Settings must match the programming settings of the paging transmitter. For the NC365B Paging Transmitter, these settings are:
    - **Base Type: Scope**
    - **CAP Base: 10000**
    - **RF Baud: Normal (512)**
    - **COMP2 Esc: Enabled**
5. Click on the **Apply** button.

Edit Paging Settings

Several options in the paging system are customizable according to the facility's specifications. To access these customizable settings, click **Edit** to unlock the **RF Paging Settings**.

The **Base Supervision** option enables the paging transmitter base to be supervised by the Tek-CARE system.

Under **Automatic Paging Settings**, there are several options regarding when pages are resent to the primary staff member, and when secondary and tertiary staff members are notified. By default, **Auto Page** is enabled, **Regenerate** is set to **300 Seconds**, **Secondary** is set to **450 Seconds**, and **Tertiary** is set to **600 Seconds**. These settings govern when other staff members receive pages after the transmitter in alarm has not been reset. For example, if the default settings are maintained and a call is placed, the system will page the primary staff member immediately, and resend pages every 300 seconds until the call is reset at the station. If the call has not been reset in 450 seconds, a secondary staff member is notified, and if the call still remains unacknowledged after 600 seconds, a tertiary staff member is notified.

Primary, secondary, and tertiary recipients are determined when staff assignments are added to the system during system customization. Paging has eight escalation levels. **Automatic Paging** must be enabled by checking the **Auto Page** box.

The options under **Message Fields** determine what information is sent in each text message. Check or uncheck the desired information to be sent.

Pages and call alerts can be sent to RF pagers, email addresses, and mobile apps. Email notification requires use of the **LS453 Email Output software**. The following steps cover adding RF pagers, text messages, and email addresses to the paging system. For email output setup, see **Set Up the LS453 Email Output Software and SMS on page 38**.

Add RF Pagers

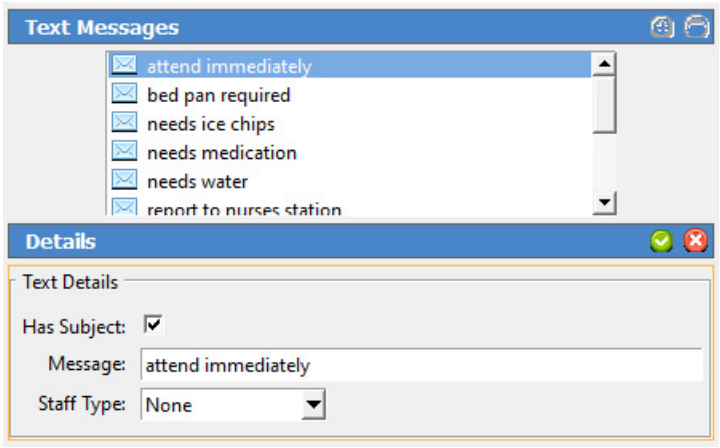
1. Click on the **Add** button in the **RF Pagers** area.
2. Type a pager's CAP code in the **Details** area and click on the **Apply** button.
3. Repeat for each pager.
4. For systems using a large number of pagers with sequential CAP codes, use the **Add Multiple** button in the **RF Pagers** pane. The **Enter Pager CAP Code Range** window will appear.
5. Type the **Lower** and **Upper** values into the fields, and click **Ok** to add the pagers.

The Tek-CARE system comes with a number of frequently used preprogrammed text messages, but in some cases, facilities will require specific text messages to be added. Preprogrammed messages can be changed, and unneeded messages can also be deleted.

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Add Custom Text Messages:

1. Choose **Staff** in the page selection pane of the ConfigTool.
2. Click on the **Add** button in the **Text Messages** pane to unlock the **Details** area as shown below.
3. Type a custom message in the **Details** area.



4. Check the **Has Subject** box to automatically include the calling location with the message.
5. Select **L1**, **L2**, or **L3** staff type to send this message to just one staff type; select **None** to send this message to all staff types.
6. Click on the **Apply** button.
7. Repeat for each custom text message.

Select **File→Save Configuration** to save your programming changes, then choose **File→Commit Configuration to System** to send the programming changes to the Tek-CARE500 system.

Delete Text Messages

To delete an unneeded text message, highlight the message in the **Text Messages** pane and click the **Delete** button.

*Select **File→Save Configuration** to save your programming changes, then choose **File→Commit Configuration to System** to send the programming changes to the Tek-CARE500 system.*

Set Up the LS453 Email Output Software and SMS

The Tek-CARE system supports email and text messaging reporting features through the optional **LS453 Email Output** software, accessible in the ConfigTool. This feature enables email addresses to be added to the system as staff devices. The email output software can send calls and other events via email to assigned staff members. Events may also be sent to any device that has an email gateway, enabling SMS messaging to cell phones.

In order to use the email output software, the facility must have a standard nonauthenticated SMTP server, configured to accept messages from the Tek-CARE system. The email output software does not support SMTP authentication. The SMTP server may be on the facility's LAN or accessible through the facility's ISP. The email output software has been successfully tested using Sendmail, Postfix, and Microsoft Exchange.

There are three key pieces of information needed to set up email communication from the Tek-CARE system that can be obtained from the facility's IT department. Ask the IT department for the **SMTP Host**

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Address, the **SMTP Port Number**, and ask if the facility has a preferred **From Address**. Note the information below:

SMTP Host Address: _____._____._____

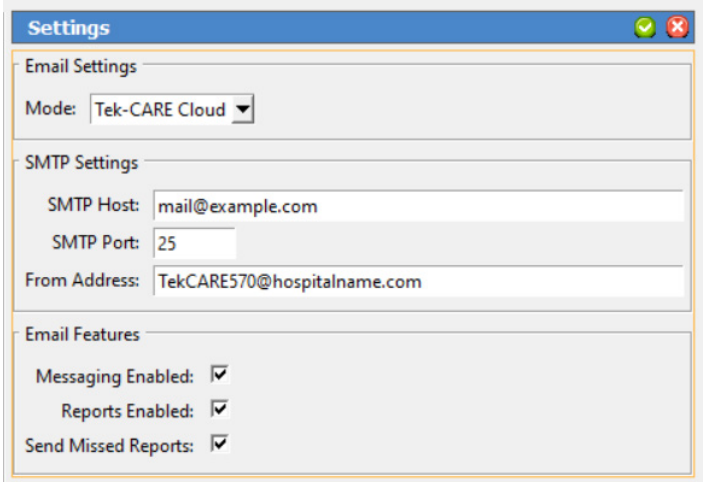
SMTP Port Number: _____

Facility Preferred From Address: _____@_____._____

Set Up Email Output in the ConfigTool

If the facility will use email call alerts select **Pagers** from the page selection pane and click the **Edit** button in the **RF Paging Settings** pane. Check the **Enabled** box under **General Settings** to turn on email call and alarm notifications.

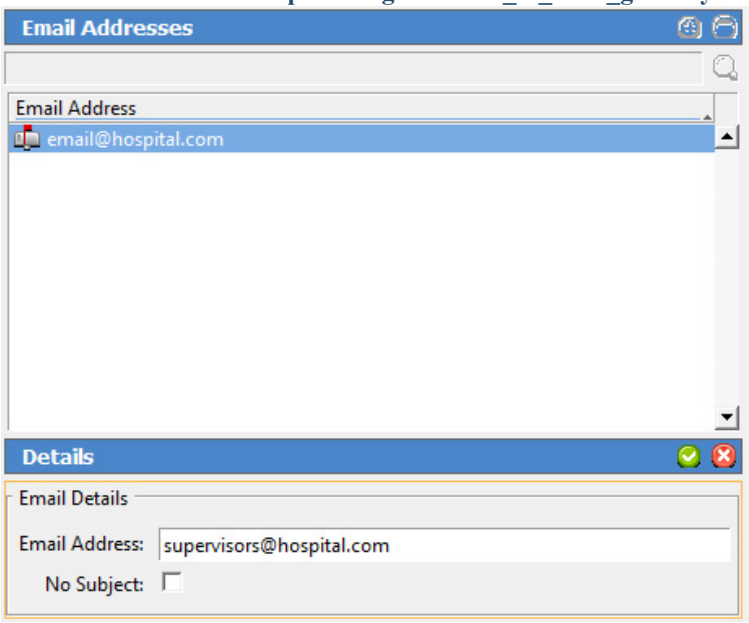
1. Open the ConfigTool and click on **Email** in the page selection pane.
2. Click on **Edit** in the **Settings** field (shown below) to unlock the field for editing.



3. Check the **Enabled** box to turn on the email output feature, and enter the **SMTP Host Address** and **SMTP Port Number** provided by the facility's IT department.
4. In the **From Address** field, input the facility's preferred from address, e.g. **TekCARE500@hospitalname.com.**
    - To automatically send Tek-CARE Reporting System reports via email, check the **Reports Enabled** checkbox. If the **Send Missed Reports** box is checked, the report emailer will send scheduled reports that were missed when it was not running.
5. Click **Apply**.
6. To add email addresses to receive reports and/or system events, click the **Add** button in the **Email Addresses** pane.
7. Type an email address in the **Email Address** field in the **Details** pane. To leave the subject line blank on all email sent to the address, check the **No Subject** box. This may be useful if the email address is being used to send text messages to a cell phone.
8. In order to send an SMS message to a cell phone, it is necessary to know both the phone number and the cell carrier's mail-to-SMS gateway. Information about cell carrier mail-to-SMS gateways

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can be found at **www.wikipedia.org/wiki/List_of_SMS_gateways**.



9. Click **Apply** to add the email address.
10. Repeat for each additional email address.
11. If the facility will use email call alerts select **Pagers** from the page selection pane and click the **Edit** button in the **RF Paging Settings** pane. Check the **Enabled** box under **General Settings** to turn on email call and alarm notifications.
12. Verify that the **Auto Page** box is checked under **Automatic Paging Settings** and that the **Regenerate**, **Secondary**, and **Tertiary** boxes are set to the factory defaults of 300, 450, and 600, respectively.

    These numbers represent seconds between paging events. If the call that caused the page to be sent is not reset within 300 seconds, a second page will be sent to the first pager. If the call remains unanswered after 450 seconds, a secondary pager is contacted. If the call still remains unanswered after 600 seconds, a tertiary pager is contacted. These settings may be modified if the facility desires.

Email addresses must be associated with staff members before reports can be emailed or calls can be sent. When staff is added, the installer or facility can choose which email address to associate with each staff member. This procedure may be found in the **Add Facility Staff and Associate Staff Devices on page 32**.

*Select **File→Save Configuration** to save your programming changes, then choose **File→Commit Configuration to System** to send the programming changes to the Tek-CARE500 system.*

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Configure Call Types and Hardware Types

These settings will not need to be altered for most installations.

The ConfigTool's **Call Types** page is used to change call-type specific behaviors, such as priority and tones. You can also modify the system default call filters (All Calls, High Priority Calls, No Calls, and Only Code), or add new call filters for use with staff and pager assignments.

To edit a call type, select it from the **Call Types** list and click the **Edit** button. The various options of the call type will be open for editing.

TekTone recommends that call types only be edited at the request of the facility.

The **Hardware** page in the ConfigTool is used to change or add station-specific behaviors. For example, an SF502 can be a Call/Alarm Device or a Check-In Device.

To edit a hardware behavior, select the type of hardware to be edited from the **Hardware Types** list and click the **Edit** button in the **Hardware Behavior Details** pane. Change the settings accordingly, and click **Apply**.

> **NOTE**: Any changes made to a hardware type will be applied to all transmitters of that hardware type on the system.

Select File→Save Configuration to save your programming changes, then choose File→Commit Configuration to System to send the programming changes to the Tek-CARE500 system.

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Set Up Central Monitoring

When central monitoring is enabled, the NC475 Tek-CARE Central Equipment sends events (such as alarms, resets, and missing transmitters) via a serial connection to the NC502 PC-Alarm Panel. The NC502 PC-Alarm Panel dials the central monitoring facility's telephone number and transmits the events to the central monitoring facility.

Set Up the NC502 Central Monitoring Hardware

1. Connect the AC adapter included with the NC502 PC-Alarm Panel to an appropriate AC power source and connect the power plug to the PC-Alarm Panel.
2. Press the power switch on the front panel of the unit to turn it on. A green LED power indicator will turn on.
3. Connect the included RS232C interface cable between the PC-Alarm Panel and COM port 6 on the NC475 Tek-CARE Central Equipment.
4. Connect a standard telephone cord using 6P6C connectors (not included) between the PC-Alarm Panel and a facility telephone jack using the included 25-pin to 9-pin adapter.

Set Up the NC503 Central Monitoring Hardware

1. Connect the AC adapter included with the NC503 to an appropriate AC power source and connect the power plug to the NC503 Central Monitoring Modem.
2. Press the power switch on the back panel of the unit to turn it on. A green LED power indicator on the front panel will turn on.
3. Connect the included serial cable between the NC503 Central Monitoring Modem and COM port 6 on the NC475 Tek-CARE Central Equipment.
4. Connect a standard telephone cord using 6P6C connectors (not included) between the NC503 Central Monitoring Modem and a facility telephone jack.

Create Central Monitoring Shifts:

Follow the instructions in **Changing or Customizing Staff Types on page 30** to create the time periods when central monitoring is to be enabled. Central monitoring shift names should be prefixed with "CM" to differentiate them from the shifts you create for other purposes.

Enable Central Monitoring:

1. Click on **Central Monitoring** in the page selection pane of the ConfigTool.
2. Click on the **Edit** button in the **Settings** area and select either **Disabled**, **NC502**, or **NC503** from the **Mode** dropdown.
3. Type the facility's 4-digit account code, as assigned by the central monitoring facility, in the Account: box. (Valid characters are the numbers 0–9 and the letters B–F.) This 4-character code is sent with every event to the central monitoring facility, and is used to identify the event's originating Tek-CARE 500 facility.
4. Note the facility's Account Code here: _____
5. Configure dialing options as needed to disable call waiting or to use a prefix to dial an outside line, or to dial "1" for 10-digit numbers.
6. Select the **Apply** button to save the new settings.

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Select the times when Central Monitoring is active:

1. Click on the **Edit** button in the **Schedule** area.
2. The **Shifts** pane now shows all available shifts. Select the check boxes to enable the appropriate central monitoring shifts.
3. Click the **Apply** button to accept the changes.

Create the Central Monitoring facility's phone number list:

When sending a report, the software tries each telephone number in order and uses the first one that connects. If that telephone number stops working, it continues through the list until it finds another working number, retrying once per minute until it connects.

1. Click on the **Add** button in the **Phone Numbers** area. Type the central monitoring facility's telephone number and click the **Apply** button. Repeat to add another phone number to the list.

   NOTE: Be sure that the central monitoring station phone numbers are entered exactly as they were provided by the central monitoring company.
2. Click the **Apply** button to add the phone number to the list.
3. To change the phone number sequence, select a phone number from the list and then click on the up and down arrows at the right to move the phone number up or down in the list.
4. Click the **Apply** button to accept the changes.

Create the list of locations to be monitored:

If a location is not checked in the **Locations** list, events from that location will not be transmitted to the central monitoring facility.

1. Click on the **Edit** button in the **Locations** area.
2. Select which locations should be monitored by checking the boxes beside each location.
3. Once all locations to be monitored have been selected, click **Apply**.

*Select **File→Save Configuration** to save your programming changes, then choose **File→Commit Configuration to System** to send the programming changes to the Tek-CARE500 system.*

Set Up Password Protection

When password protection is enabled, staff access to various functions of the Tek-CARE system can be controlled. Password protection is useful to prevent unauthorized facility staff from making changes to the system such as adding or removing transmitters, changing staff assignments, or altering reporting settings. Several different passwords may be used, each protecting different system settings.

Set Up Password Protection:

1. Click on **Passwords** in the page selection pane of the ConfigTool.
2. In the Password Manager page, select the blank default password and click the **Edit** button.
3. In the **Settings** field, type the new password in the **Password** box.
4. Below the **Password** box is a list of features that can be password protected. Check the boxes for each feature that the facility would like to be password protected.
5. Click the **Apply** button in the **Settings** field.

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Add Additional Passwords

Additional passwords may be added to give different levels of access to the Tek-CARE system.

1. Click on **Passwords** in the page selection pane of the ConfigTool.
2. In the Password Manager pane, click the **Add** button.
3. In the **Settings** field, type the new password in the **Password** box.
4. Below the **Password** box is a list features that can be password protected. Check the boxes for each feature that the facility would like to be password protected.
5. Click the **Apply** button in the **Settings** field.
6. Repeat for each additional password.

Select File→Save Configuration to save your programming changes, then choose File→Commit Configuration to System to send the programming changes to the Tek-CARE500 system.

Save and Backup the Custom Configuration

At this point, system configuration is complete. The following section will discuss customizing the system for the facility's needs by adding patients, staff, and other information.

The system configuration that has been created must be saved and backed up.

Saving and Backup Procedure

1. In the ConfigTool, select **File→Load Configuration from System** to ensure that the most recent system configuration is loaded into the ConfigTool.
2. Select **File→Save Configuration** to update the configuration saved to the programming laptop hard drive. Insert the included TekTone USB flash drive into any available USB port.
3. In the ConfigTool, select **File→Save Configuration As…** and browse to the USB flash drive. Type in a file name and click **Save**. Safely eject the flash drive and remove it from the NC475 Tek-CARE Central Equipment.

Store the backup in a secure location.

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Using the Tek-CARE Reporting System

The Tek-CARE Reporting System is part of the Tek-CARE software suite. The reporting system records nurse call and emergency call system events and faults. It is also used to create custom summary and detail reports on system activity.

To start the Tek-CARE Reporting System by accessing the reporting system remotely from a facility PC.

> **NOTE**: In order to access the reporting system remotely, both the NC475 Tek-CARE Central Equipment and the facility PC must be connected to the facility LAN.

Using any computer on the facility's local area network (LAN):

1. Run a web browser, such as Internet Explorer® or Google Chrome® on the networked PC.
2. Type the NC475 Tek-CARE Central Equipment's static IP address into the web browser's address bar.
3. If password protection is enabled, the Tek-CARE Reporting System password window will appear. Enter an access password and click **Login**.
4. The Tek-CARE Reporting System home screen will appear.

Creating Reports

About Datasets (Versions 7200 and Prior)

In order to keep report creation times short while the system collects more and more data, calls are stored in datasets that span one month. A second set of datasets are also maintained that includes calls from the middle of one month to the middle of the next. Reports cannot span datasets.

Create a History Report

History reports contain information about calls, alarms, and system faults. To create a history report, appropriate filters must be selected in the reporting system.

When the reporting system starts, the home screen of the reporting system appears that shows many options for filtering calls. By default, the filtering selections include all system events from all transmitters for the past seven days.

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To create a custom report, follow the steps below.

1. Run a web browser, such as Internet Explorer® or Google Chrome® on the networked PC.
2. Type the NC475 Tek-CARE Server's static IP address into the web browser's address bar.
3. If password protection is enabled, the Tek-CARE Reporting System password window will appear. Enter an access password and click **Login**.
4. The Tek-CARE Reporting System home screen will appear.
5. Select a date range for the report by choosing one of the options from the **Filter** drop-down menu. The drop-down list includes such options as **Last Hour**, **Last 24 Hours**, **Last 7 Days**, **This Month**, and many more. You may also enter a custom date and time range manually.

Figure 7 - Reporting Database Selection



6. If desired, select a **Time Range** within the selected **Date Range**. For example, to see events that occurred during third shift of the past seven days, select **Last 7 Days** from the Filter drop-down menu, uncheck the **No Filter** box in the **Time Range** pane and type 21:00 in the **Start** box of the **Time Range** pane and 07:00 in the **End** box.
7. If desired, choose a **Response Time** filter. Check the box labeled **Only events with response times over...** and type a response time into the boxes in MM:SS format.
8. Reports can be further filtered by **Zone**, **Device**, **Location**, **Patient**, and **Event Type**. Simply select which filters to apply to the report.

> **NOTE**: For windows with more than one option, hold the **Ctrl** key and click on multiple entries to select more than one entry. To quickly select a range, click on the first entry you would like to select, then hold down the **Shift** key, and click the last entry you would like to select.

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Figure 8 - Reporting System Home Screen



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9. In the **Summary** pane, select the information to be included in the report summary. By default, **Overall** and **Full Summaries** are selected. These choices are sufficient for most reports. The other selections available break the report down further into very detailed and specific pieces.
10. The **Details** pane shows each individual call in the body of the report. By default, details are not shown. To show call details, check the **Show Details** box, then choose if the details should include information about the zone the call was placed from by checking the **Include Zones** box.
11. To group overlapping calls together, check the box labeled **Group** overlapping events, allowing a gap up to... Be sure to allow a small gap when grouping events (at least 5 seconds).
12. In the **Output Types** pane, choose HTML to open the report in the browser window or CSV to open the report as a Microsoft Excel® spreadsheet.
13. If desired, enter a description of the report in the **Report Description** pane.
14. Click **Create Report**.

Quick Links

To speed up report creation, the Tek-CARE Reporting Software provides several options for quick and easy creation of commonly requested reports. By clicking the **Quick Links** button on the reporting home screen, reports including all events from the Last Hour, Last 24 Hours, Last 7 Days, Last Week, This Week, and several more options are available.

Create a Low Battery Report

TekTone recommends creating a low battery report once every week for systems with wireless transmitters and other devices. A low battery report will generate a list of transmitters with low batteries. Replace any low batteries immediately.

To create a low battery report, click the **Maintenance Report** button which will show a list of available **Low Battery Transmitters** and **Line Power Down Transmitters**, both in-use and not in-use.

A web browser will open and display the low battery list. For information about replacing batteries in Tek-CARE wireless transmitters, see **Replace Tek-CARE Transmitter Batteries on page 54**.

Viewing and Interpreting Report Data

Tek-CARE reports are presented with all requested data visible in table format. The information contained in the tables may also be viewed in graph format for easier interpretation.

To view graphs of information in a particular section, click the **Show Graph** button below the table. To hide a graph, click the **Hide Graph** button below the graph. To quickly view all available graphs, click the **Show All Graphs** button at the top of the report page. To hide all graphs, click the **Hide All Graphs** button at the top of the report page.

Each section of the report may also be hidden by clicking the **Hide Section** button under the section title. The section then collapses, hiding the data from view. To reveal the hidden data, click the **Show Section** button under the section title.

To hide all sections, click the **Hide All Sections** button at the top of the report page. To view all sections, click the **Show All Sections** button at the top of the report page.

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System Operating Instructions

The NC475 Tek-CARE Central Equipment is used to provide connections for the Tek-CARE500 hardware. The NC475 operates as a Stand-Alone System with the Tek-CARE500 equipment.

All connections are located on the rear of the Tek-CARE Central Equipment. Though the NC475 is typically installed headless, a monitor, keyboard, and mouse may be connected if desired.

The face of the NC475 includes four status LEDs, an LCD notification screen, and navigation buttons. When calls are placed, the LCD screen will always display the highest priority calls faults present on the nurse call system. A simple menu used for basic system configuration and troubleshooting options is available from the LCD screen as well.

The Tek-CARE Central Equipment must be dedicated to the Tek-CARE system. Do not connect non-TekTone hardware to the NC475 Tek-CARE Central Equipment unless specifically instructed to by TekTone Technical Support.

Refer to the NC475 Tek-CARE Central Equipment Installation Manual, IL1012, for more information.

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Answering Calls

Most calls can only be cleared from the system by resetting the call at the initiating device.

For pull-down switches such as the SF529ES, SF531ES, and SF531UL, push the switch up to reset the call.

For SF530ES and SF530UL Room Stations, press the **Cancel** button on the transmitter.

SF503UL and SF504UL Pendants

There are two ways to clear alarms from the SF503UL and SF504 Pendants.

To use the RP500 Alarm Clearance Card to reset alarms, simply place the dot on the RP500 over the call button on the pendant as shown to the right. The blue LED on the pendant will quickly blink six times to indicate the call has been cleared.

To clear an alarm without an RP500 Alarm Clearance Card, press the call button three times in quick succession. The blue LED on the pendant will blink twice. Immediately press the call button three more times in quick succession. The blue LED on the pendant will quickly blink six times to indicate the call has been cleared.



Using the RP500 Alarm Clearance Card

SF501ES and SF501/2ES Pendants

For SF501ES and SF501/2ES Pendant Transmitters, locate the reset button on the rear of the pendant transmitter. The reset button is shown to the right. Use a small blunt object such as a ballpoint pen to press the reset button (indicated by the arrow). Once the call is reset, the red LED on the front of the pendant transmitter will stop flashing.

If the pendant uses a belt clip, it will need to be removed to access the reset button. Push in on the locking tab at the top of the transmitter and up on the belt clip as shown to remove the belt clip from the transmitter.



Pendant Transmitter Reset Button

Acknowledgeable Calls

The only call types that can be reset at the ConfigTool are calls from SF502, SF502ES, SF525, SF525ES, SF525/2ES, SF526, SF527, and SF527ES transmitters.

If the device is set to **Acknowledge** to clear the call, select the call from the monitor or app and then press the **Acknowledge** button.

The call will clear from the call display.



Belt Clip Removal

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Create a New Text Message

If paging is installed on the Tek-CARE system, text messages can be automatically sent to staff pagers, mobile devices, and email addresses in response to system events.

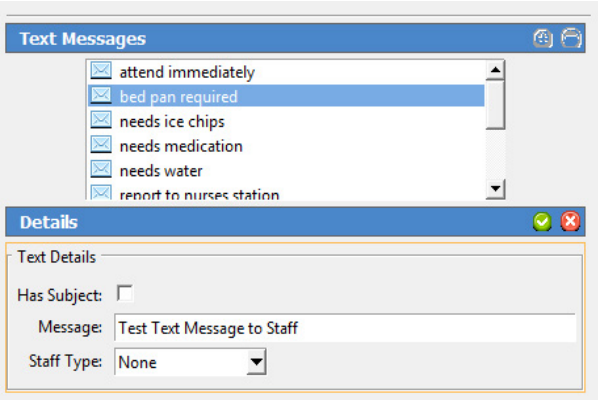
To send automatic and manual text messages, the system must include one or both of the following:

- A TekTone NC365B Paging Transmitter and TekTone pagers. Paging must also be enabled using the ConfigTool (see **Set Up Paging on page 36** the installation manual).
- The LS453 Email Output module, enabled using the ConfigTool. (See **Set Up the LS453 Email Output Software and SMS on page 38** in the installation manual.)

To create a new text for staff devices:

1. In the ConfigTool software, click the **Staff** button.
2. In the **Text Messages** window, click **New**.

   NOTE: The **Staff Types** selection acts as a filter for the **Staff** or **Staff Groups** selection. Do not use the **Staff Types** selection to attempt to send a text message to all staff members of a particular level.
3. Type a custom message in the **Message** box. Select a **Staff Type**.
4. Click the **Apply** button.
5. Go to **File→Save Configuration** and **Commit Configuration to System** once finished.



Temporarily Disable a Transmitter

Occasionally, it may be necessary to temporarily disable a transmitter on the system if a patient leaves the facility with their pendant transmitter or if a stationary transmitter will not be used for a period of time. Disabling transmitters that are not in use helps conserve battery life and prevents false missing calls from appearing on the Tek-CARE system.

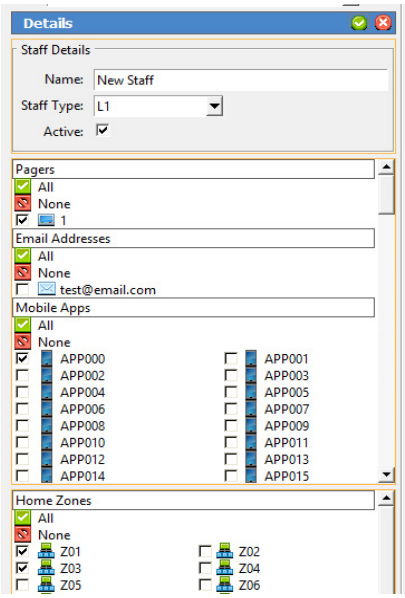
1. Click the **Transmitters** button.
2. Select the transmitter to be disabled from the transmitters list and click the **Edit** button in the **Details** pane to unlock the pane for editing.
3. Set the **In Use** box to **No** to disable the selected transmitter.
4. Click **Accept** to send the changes to the system.
5. If possible, remove the battery from the transmitter to conserve battery life.

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Adding, Editing, or Deleting a Staff Member

A staff member can be either an individual or a job description, and can be assigned one or more pagers and email addresses in the LS454 Config Live Tool. Each staff member may also be assigned a staff type. The four default levels of staff are None, L1, L2, and L3. Custom staff types may also have been added during system setup.

To Add a Staff Entry



1. Using the Staff register in the software, click the **Add** button in the **Staff** pane. The pane will open for editing as shown to the right.
2. Type a name for the staff member in the **Name** field. This name may be a person, wing, facility zone, or pager CAP code. If desired, assign a staff type or leave the default **None** selection. Check the **Active** box to enable the staff member. If the staff member is not set to **Active**, events will not be sent to the staff member's assigned devices.
3. Select any Pagers and/or Email Addresses to assign to the staff member. Remember that assigning a device to a staff member automatically unassigns it from any other staff members.
4. Select one or more **Home Zones** to assign to the staff member. When sending a manual text message with a call selected in the call display, the list of possible recipients is filtered to show only those staff members whose home zones include the zone of the initiating transmitter.
5. Click **Apply** to add the new staff member.

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To Edit an Existing Staff Entry

1. Using the Staff register, select an existing staff entry from the list of available staff.
2. Click **Edit** in the **Details** pane to unlock the staff member's details for editing.
3. Make the required changes to the staff entry and click **Apply** to write the changes to the system.

To Delete a Staff Entry

1. Using the Staff register, select an existing staff entry from the list of available staff.
2. Click the **Delete** button in the **Staff** pane. Changes are automatically written to the system.

Adding, Editing, and Deleting Staff Groups

Staff groups are used to send custom text messages to the pagers of a specific group of staff members. They may also be used to create staff assignments for automatic text messages.

To Add a new Staff Group

1. Using the Staff Groups register, click the **Add** button in the **Staff Groups** pane to unlock the **Details** editing pane.
2. In the **Name** field, type the name of the new staff group, and then check the boxes beside the staff members to add to the group.
3. Click **Apply** to add the staff group to the system.
4. Repeat for each additional staff group to be created.

To Edit an Existing Staff Group

1. Using the **Staff Groups** register, select a **Staff Group** from the list in the **Staff Group** pane.
2. Click **Edit** in the **Details** to unlock the staff group details for editing.
3. Make the required changes to the staff group and click **Apply** to write the changes to the system.

To Delete a Staff Group

1. Using the **Staff Groups** register, select an existing staff group from the **Staff Groups** list.
2. Click the **Delete** button in the **Staff Groups** pane. Changes are automatically written to the system.

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SF503UL in Storage Mode

Storage mode is an ultra low battery state designed to protect the life of the internal backup battery. The pendant is shipped in storage mode. If the waterproof pendant transmitter will go unused for any significant period, it should be put in storage mode. The device will also automatically go into storage mode at the next check-in transmission time if the coin cell battery has been removed.

> **IMPORTANT: When the pendant is in storage mode, it will not transmit alarms or check-in messages. This device should not be left in storage mode for more than 12 months. Devices should be stored between 69 and 73 degrees Fahrenheit.**

Putting the SF503UL in Storage Mode

1. Use the RP500 Alarm Clearance Card or a quarter to turn the battery door to the unlock position and remove the battery door.
2. Remove the battery from the battery compartment.
3. Press the activation button for at least one second. The red LED will flash and the pendant will vibrate briefly to indicate that an alarm has been sent. (This serves as a confirmation that the pendant is now in storage mode.)
4. Seat the battery door over the battery chamber, and use the RP500 Alarm Clearance Card or a quarter to turn the battery door to line up with the arrow on the battery door with the arrow under the locked padlock icon.

Taking the SF503UL out of Storage Mode

1. Use the RP500 Alarm Clearance Card or a quarter to turn the battery door to the unlock position and remove the battery door.
2. Place a battery in the battery compartment, ensuring the positive terminal faces up.
3. Seat the battery door over the battery chamber, and use the RP500 Alarm Clearance Card or a quarter to turn the battery door to line up with the arrow on the battery door with the arrow under the locked padlock icon.
4. Press the activation button for at least one second. The red LED will flash and the pendant will vibrate briefly to indicate that an alarm has been sent. (This serves as confirmation that the pendant is no longer in storage mode.)
5. Reset the alarm. The pendant is now ready for use.

Replace Tek-CARE Transmitter Batteries

Before replacing batteries in Tek-CARE wireless transmitters, create a low battery report using the ConfigTool Live to show which batteries need to be replaced. Battery life in Tek-CARE wireless transmitters is affected by a number of factors including usage, battery type, climate, supervision interval, and more.

TekTone recommends that batteries used in Tek-CARE wireless devices be purchased directly from TekTone to ensure quality and accuracy.

Refer to **Tek-CARE Wireless Transmitter Battery Information on page 12** for battery information for Tek-CARE wireless transmitters.

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ESD Precautions

Electrostatic Discharge, or **ESD** (more commonly known as static electricity) is a common killer of electronic devices. Electronic components are extremely sensitive to ESD.

When replacing batteries in Tek-CARE wireless transmitters, be careful to dissipate any static charge from your body. Static electricity will damage the electronic components inside the Tek-CARE wireless devices if it is not dissipated before touching any internal part of the wireless transmitter.

To dissipate static charge from your body, touch a grounded metal object such as a metal shelf or metal door frame before touching the inside of any Tek-CARE wireless device.

SF501 and SF501ES Pendant Transmitter Battery Replacement

If necessary, remove the belt clip from the SF501 or SF501ES Pendant Transmitter.

1. Remove the three screws from the rear of the transmitter as shown in **Figure 10 on page 56**. Remove the rear cover from the transmitter and set it aside. Be careful not to lose the black rubber disk and plastic insert in the rear cover.
2. Remove the old battery from the transmitter by pushing the battery from its holder as shown in **Figure 11 on page 56**.
3. Insert a new battery, paying close attention to polarity. Insert the new battery with the + mark facing up as shown in **Figure 12 on page 56**.
4. Immediately after inserting the new battery, press the **Reset** button on the rear of the device. This sends a message to the NC475 Tek-CARE Central Equipment to update the battery change date displayed in the **Transmitters** register.
5. Replace the rear cover and screws.

SF503UL and SF504UL Pendant Transmitter Battery Replacement

1. Use the RP500 Alarm Clearance Card or a quarter to turn the battery door on the rear of the pendant to the unlocked position as shown in **Figure 9 on page 55**.
2. Remove the battery door.
3. Remove the old battery from the battery compartment.
4. Place the new battery in the battery compartment, ensuring that the positive terminal (+) faces up.
5. Seat the battery door over the battery so that the arrow on the battery door is lined up with the unlocked padlock icon.
6. Use the RP500 Alarm Clearance Card or a quarter to turn the battery door to line up with the arrow on the battery door with the arrow under the locked padlock icon.
7. Press the call button on the pendant to activate the transmitter.
8. Reset the resulting alarm. The pendant is now ready for use.

WARNING: These pendants come with a coin batter and an internal battery. If the coin battery dies and the internal battery drains completely, the device will no longer work and will have to be replaced.

Figure 9 - SF503UL and SF504ES Battery Replacement



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Figure 10 - SF501 ES Screws



Figure 11 - SF501ES Battery Removal



Figure 12 - SF501ES Battery Orientation



Figure 13 - SF529ES/UL, SF30ES/UL, and SF531ES/UL Mounting Screws



Figure 14 - SF529ES/UL, and SF531ES/UL Battery Orientation and Reset Switch

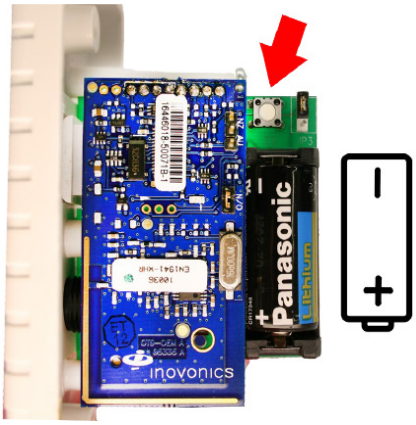


Figure 15 - Open SF502ES

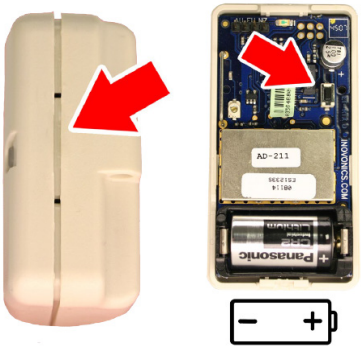
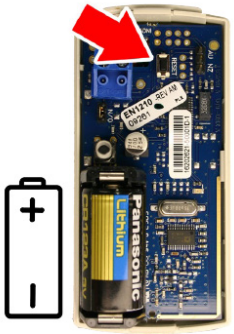


Figure 16 - SF502ES Battery Orientation

Figure 17 - Open SF520ES/UL, SF525ES/UL SF525/2ES/UL



Figure 18 - SF520ES/UL, SF525/2ES/UL, SF527ES/UL Battery Orientation



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SF529ES, SF529UL, SF530ES, SF530UL, SF531ES, and SF531UL Battery Replacement

1. Remove the two screws holding the transmitter to the wall as shown in **Figure 13 on page 56**.
2. Remove the transmitter from the wall and locate the battery and reset switch. The battery orientation and reset button location are shown in **Figure 14 on page 56**.

   NOTE: Battery and reset switch location may vary by device. In each case, the white push button located on the green circuit board of the transmitter is the reset switch. The battery orientation is marked inside the battery holder.
3. Remove and replace the battery.
4. Immediately after inserting the new battery, press the **Reset** button on the rear of the device. This sends a message to the NC475 Tek-CARE Central Equipment to update the battery change date displayed in the Transmitters register.
5. Reinstall the transmitter.

SF502ES Wall Mounted Call Transmitter Battery Replacement

1. Remove the transmitter from the wall and insert a small flathead screwdriver in the seam of the SF502ES case as shown in **Figure 15 on page 56**. Push in on the tab and carefully pry the case open.
2. Note the battery orientation and small black reset button location (indicated by the arrow) shown in **Figure 16 on page 56**.
3. Remove and replace the battery.
4. Immediately after inserting the new battery, press the Reset button on the rear of the device. This sends a message to the NC475 Tek-CARE Central Equipment to update the battery change date displayed in the Transmitters register.
5. Replace the cover and reinstall the transmitter.

SF520ES, SF520UL, SF525ES, SF525UL, SF525/2ES, SF525/2UL, SF527ES, and SF527UL Battery Replacement

The SF520ES and SF520UL Door/Window Egress Transmitter, SF525ES and SF525UL Universal Contact Transmitter, and SF527ES and SF527UL Wireless Support Module share the same plastic case and circuit board layout.

NOTE: SF527ES Wireless Support Modules are used with SF337C Waterproof Emergency Switches to enable waterproof SF337C switches to be used with the Tek-CARE500 wireless emergency call system. Remove the SF337C Waterproof Emergency Switch from its mounting location as shown in **Figure 13 on page 56** and replace the battery in the SF527ES Wireless Support Module as described here.

1. Remove the transmitter from its mounting location and insert a small flathead screwdriver in the seam of the case. Push in on the tab and carefully pry the case open.
2. Note the battery orientation and small black reset button (indicated by the arrow) shown in **Figure 18 on page 56**.
3. Remove and replace the battery.
4. Immediately after inserting the new battery, press the **Reset** button on the rear of the device. This sends a message to the NC475 Tek-CARE Central Equipment to update the battery change date displayed in the Transmitters register.
5. Replace the cover and reinstall the transmitter.

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SF521UL and SF523UL Station Battery Replacement

1. Remove the station from its mounting bracket.
2. Note the battery orientation and reset button (indicated by the arrow) shown in **Figure 19 on page 58** and **Figure 20 on page 58**.
3. Replace the cover and reset the station.

   WARNING: If the circuit board on the SF521UL is not carefully placed back in the bezel, it can break the reset switch.

Figure 19 - SF521UL Battery Orientation and Reset Switch

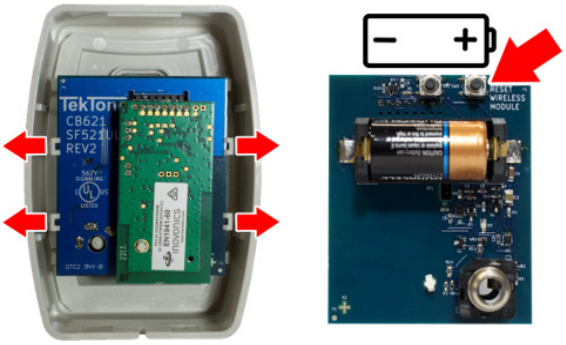


Figure 20 - SF523UL Battery Orientation and Reset Switch



SF506ES Wireless Smoke Detector Battery Replacement

1. Twist the wireless smoke detector counterclockwise and remove it from the mounting base.
2. Remove the battery and properly dispose of it.
3. To ensure the proper power-down sequence, wait **at least 20 seconds** before installing the new battery.

   NOTE: If the user does not allow the full 20 second wait for the power-down sequence, it can disrupt communication between the SF506ES and the Tek-CARE system.
4. Following the polarity diagram inside the battery compartment, install the new 3-volt BA505 battery.
5. Reinstall the detector onto the mounting base and turn it clockwise to lock it into place.
6. Ensure the green LED is blinking about once every 10 seconds to indicate normal operation.
7. Test the smoke detector as described in **Test the SF506ES Wireless Smoke Detector on page 23**.

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Back up the Tek-CARE System Configuration

Whenever significant changes are made, back up a copy of the configuration on the hard drive of the Tek-CARE module.

Follow these steps to create a configuration backup on the NC475 Tek-CARE Central Equipment and a USB drive:

1. Open the **ConfigTool** by double-clicking the shortcut on the Tek-CARE desktop. Select the IP address of the Tek-CARE on the left side of the splash screen.
2. Choose **Load Configuration from System** on the right side of the splash screen to import the system configuration into the ConfigTool and prepare it for saving.
3. In the ConfigTool, select **File→Save Configuration As** to save a copy of the current system configuration. By default, the backup file is saved on the programming laptop with a file extension of .nc4 located in the **C:\Program Files\TekTone\LS450\Configs** directory. If desired, the file may also be saved to another location such as the desktop of the programming laptop.

   NOTE: TekTone strongly recommends that the configuration be saved and backed up each time it is modified. It is good practice to also back the configuration up to a USB flash drive.

To save the configurations and backups automatically, go to **Server Settings**. Check all applicable options for the facility's needs. Click **Apply** and save the configuration.

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Tek-CARE500 Programming Worksheet

Facility:_____

Wing:_____

Transmitter Dev:	Model #	Location (Room #)	Resident	Complete

Tek-CARE500 Programming Worksheet

Facility:_____

Wing:_____

Transmitter Dev:	Model #	Location (Room #)	Resident	Complete